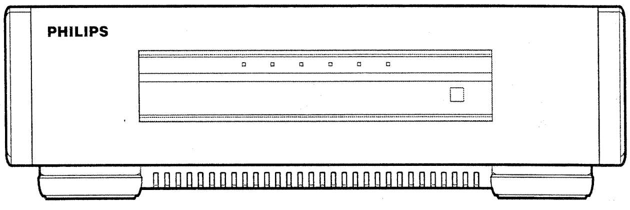
Video Cassette Recorder VR20D/58

Service
Service
Service



VR20D58

Service Manual

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1 Disassembly

2 Mechanism adjustments

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Specification:

Video & Hi Fi recording:	Rotary six-head helical scan system (2 audio heads)
Antenna input Signal:	PAL BG, DK, I.
Antenna:	VHF/UHF 75Ω external antenna terminal
Power requirement:	AC 220V – 240V
Power consumption:	33W Power On 8.7W Power Off
Operating temperature:	+5°C to +40°C
Relative humidity:	10% to 80%
Weight:	8 kg
Dimensions:	468 x 145 x 369mm

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

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d20d58.pm5

PHILIPS

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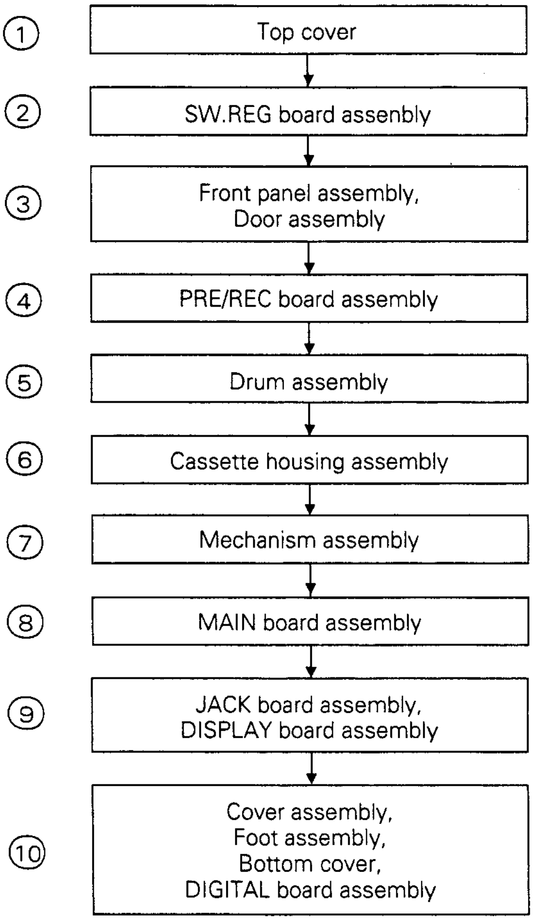
SECTION 1
DISASSEMBLY

1.1 DISASSEMBLY FLOW CHART

This flowchart lists shows the disassembling steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally laid.



①
Top cover
②
SW.REG board assenbly
③
Front panel assembly,
Door assembly
④
PRE/REC board assembly
⑤
Drum assembly
⑥
Cassette housing assembly
⑦
Mechanism assembly
⑧
MAIN board assembly
⑨
JACK board assembly,
DISPLAY board assembly
⑩
Cover assembly,
Foot assembly,
Bottom cover,
DIGITAL board assembly

1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1a), 3(L1a), S.PANEL(L) ASSY, 3(L1b), S.PANEL(R) ASSY, (S1b)	<NOTE1>
②	SW.REG BOARD ASSEMBLY	D2	L2(WR2a-WR2e), CN5304/CN5309(WR2a), CN5306(WR2b), CN5307(WR2c), CN5303(WR2d), CN5305(WR2e), CN5301(WR2f), 4(S2)	<NOTE 2a> <NOTE 2b> <NOTE 2c>
③	FRONT PANEL ASSEMBLY	D3a	2(S3a), 9(L3), CN7102(WR3a), CN7004(WR3b)	<NOTE 2a> <NOTE 3a>
	DOOR ASSEMBLY	D3b	(S3b), WR3c, (S3c), SHAFT(R) ASSY, 2(S3d), SHAFT(L) ASSY, 2(S3e), DAMP UNIT ASSY, 2(S3f), SHAFT ASSY	<NOTE 3b> <NOTE 3c>
④	PRE/REC BOARD ASSEMBLY	D4	CN602(WR4a), CN601(WR4b), L4(WR4c), (S4a), SHIELD CASE(PRE/REC), CN605(WR4d), (S4b), WR4c, CN603, CN604	<NOTE 2a> <NOTE 4>
⑤	DRUM ASSEMBLY	D5	CN1(WR5a), CN1(WR5b), (L5a), HEAD CLEANER ASSY, 3(S5)	<NOTE 2a> <NOTE 5>
⑥	CASSETTE HOUSING ASSEMBLY	D6a, D6b	CN3603(WR6), 2(S6a), (S6b), (S6c), 2(L6)	<NOTE 2a> <NOTE 6>
⑦	MECHANISM ASSEMBLY	D7	CN3002(WR7a), CN1(WR7b), WR7c, 2(S7), 2(L7)	<NOTE 2a> <NOTE 7>

(1) (2) (3) (4) (5)

(1) Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) NO. of parts Figures.

(2) Part name to be removed or installed.

(3) Fig.No. showing procedure or part location

(4) Identification of part to be removed,unhooked,unlocked, released,unpluged,unclamped or unsoldered. P = Spring, W = Washer, S = Screw, L = Locking tab, CNxx(WRxx) = Remove the wire (WRxx) from the connector (CNxx).

NOTE: *The bracketed ( ) WR of the connector symbol are assigned nos. in priority order and do not correspond to those on the spare parts list.*

(5) Adjustment information for installation

1.3 DISASSEMBLY/ASSEMBLY METHOD

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1a), 3(L1a), S.PANEL(L) ASSY, 3(L1b), S.PANEL(R) ASSY, (S1b)	<NOTE1>
②	SW.REG BOARD ASSEMBLY	D2	L2(WR2a-WR2e), CN5304/CN5309(WR2a), CN5306(WR2b), CN5307(WR2c), CN5303(WR2d), CN5305(WR2e), CN5301(WR2f), 4(S2)	<NOTE 2a> <NOTE 2b> <NOTE 2c>
③	FRONT PANEL ASSEMBLY	D3a	2(S3a), 9(L3), CN7102(WR3a), CN7004(WR3b)	<NOTE 2a> <NOTE 3a>
	DOOR ASSEMBLY	D3b	(S3b), WR3c, (S3c), SHAFT(R) ASSY, 2(S3d), SHAFT(L) ASSY, 2(S3e), DAMP UNIT ASSY, 2(S3f), SHAFT ASSY	<NOTE 3b> <NOTE 3c>
④	PRE/REC BOARD ASSEMBLY	D4	CN602(WR4a), CN601(WR4b), L4(WR4c), (S4a), SHIELD CASE(PRE/REC), CN605(WR4d), (S4b), WR4c, CN603, CN604	<NOTE 2a> <NOTE 4>
⑤	DRUM ASSEMBLY	D5	CN1(WR5a), CN1(WR5b), (L5a), HEAD CLEANER ASSY, 3(S5)	<NOTE 2a> <NOTE 5>
⑥	CASSETTE HOUSING ASSEMBLY	D6a, D6b	CN3603(WR6), 2(S6a), (S6b), (S6c), 2(L6)	<NOTE 2a> <NOTE 6>
⑦	MECHANISM ASSEMBLY	D7	CN3002(WR7a), CN1(WR7b), WR7c, 2(S7), 2(L7)	<NOTE 2a> <NOTE 7>
⑧	MAIN BOARD ASSEMBLY	D8	CN7101(WR8a), CN7001(WR8b), CN3602(WR8c), CN3605(WR8d), CN3606(WR8e), L8(WR8f-WR8g), CN2601(WR8f), CN1006(WR8g), 4(S8)	<NOTE 2a>
⑨	JACK BOARD ASSEMBLY	D9	CN7003, 2(L9a)	<NOTE 2a>
	DISPLAY BOARD ASSEMBLY		(L9b), REC SAFETY BOARD ASSY, (L9c), CASS.SW BOARD ASSY, 4(L9d)	
⑩	COVER(T.B) ASSEMBLY, FOOT ASSEMBLY, BOTTOM COVER, DIGITAL BOARD ASSEMBLY	D10a D10b	5(S10a), 2(S10b), 2(S10c), 4(S10d), 4(L10), 4(S10e)	<NOTE 2a> <NOTE 10a> <NOTE 10b>

<NOTE 1> When installing the top cover, make sure not to isolate the earth plate of the front panel assembly.

<NOTE 2a> Be careful not to damage the connectors and wires etc. during connection and disconnection.
When connecting the wires to the connectors, be careful with the wire direction.

<NOTE 2b> Take care that the wires are not subjected to stress when plugging or unplugging wires.

<NOTE 2c> The shield cover of the switching regulator board assembly is soldered to the board, be careful not to peel off the solder from the pattern when handling it.

<NOTE 2d> When installing the switching regulator board assembly, make sure that the earth plate is passed through the hole in the bottom chassis and then touches the bottom cover.

<NOTE 3a> When installing the front panel assembly, make sure that the door opener ⓐ is lowered.

<NOTE 3b> When fixing the screw (S3b), jointly secure the lug wire (WR3c).

<NOTE 3c> When installing the Damper Unit Assembly and the Shaft Assembly, secure them jointly with a screw while loosening the earth plate of the Front Panel Assembly.

<NOTE 4> When fixing the screw (S4b), jointly secure the lug wire (WR4c).

<NOTE 5> When installing the Head Cleaner Assembly, install the Head Cleaner Assembly ⓓ so that it will be on the drum side of the guide rail ⓔ.
When installing the Drum Assembly, secure it with the screws (S5) ⓐ, ⓑ, ⓒ, in that order.

<NOTE 6> When installing the Cassette Housing Assembly, make sure that the control cam and the main deck alignment holes are aligned. If they are not, rotate the routing motor belt to the front to align the holes.
When installing the Cassette Housing Assembly, be careful not to damage the REC Safety Board SW, Cassette SW, S-VHS SW or Mechanism Assembly parts.

<NOTE 7> There are two coupling spacers between the Mechanism Assembly and the Main Board Assembly. To remove the Mechanism Assembly, disengage the spacer hook (L7) at the mechanism side by pinching it with pliers etc. then pull out the Mechanism Assembly.
When installing the Mechanism Assembly, be careful not to damage any of the sensors or switches on the main board.

<NOTE10a> When installing the Digital Board Assembly and the bottom cover on the bottom chassis, make sure that the wires are not caught.

<NOTE10b> Be careful when plugging or unplugging a wire.

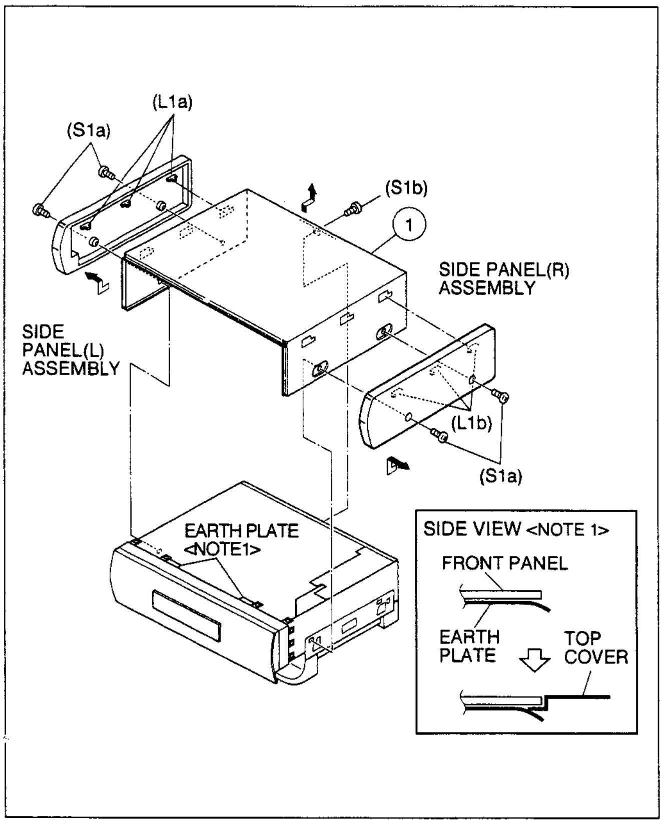
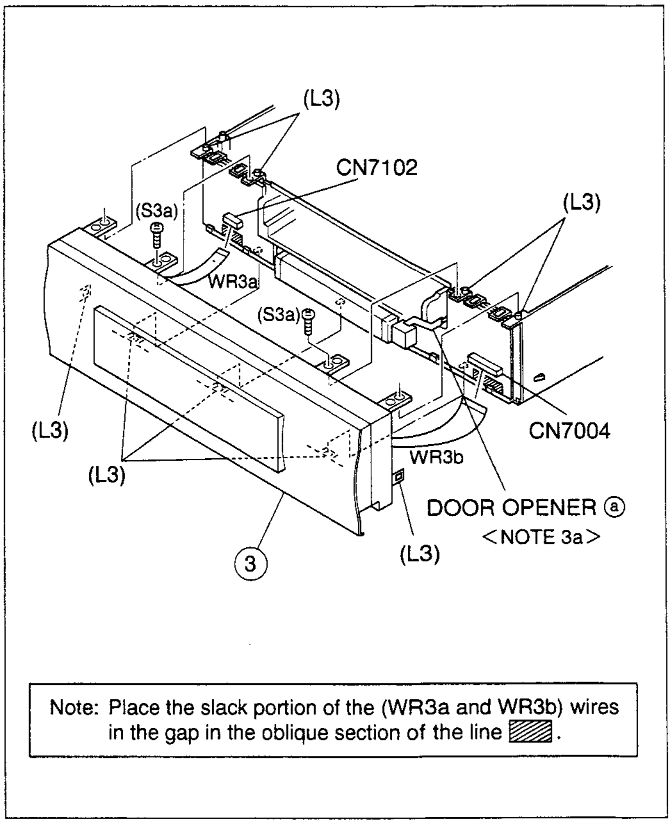

(L1a)
(S1a)
(S1b)
1
SIDE PANEL(R) ASSEMBLY
SIDE PANEL(L) ASSEMBLY
(L1b)
(S1a)
EARTH PLATE <NOTE1>
SIDE VIEW <NOTE 1>
FRONT PANEL
EARTH PLATE
TOP COVER

Fig. D1


(L3)
CN7102
(L3)
(S3a)
WR3a
(S3a)
(L3)
CN7004
(L3)
WR3b
DOOR OPENER ⓐ
<NOTE 3a>
3
(L3)

Note: Place the slack portion of the (WR3a and WR3b) wires in the gap in the oblique section of the line ▨.

Fig. D3a

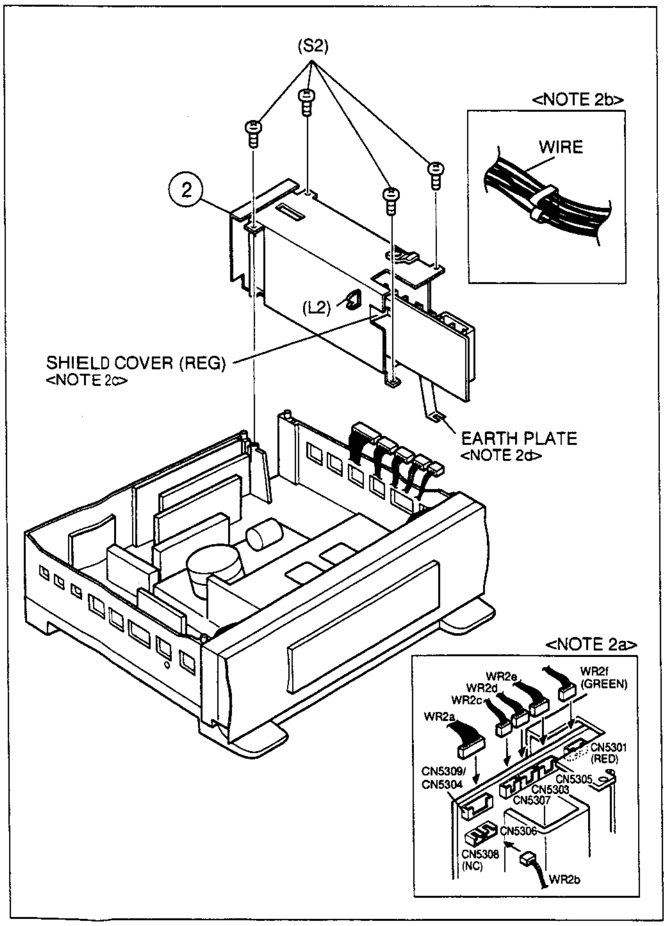

(S2)
<NOTE 2b>
WIRE
2
(L2)
SHIELD COVER (REG)
<NOTE 2c>
EARTH PLATE
<NOTE 2d>
<NOTE 2a>
WR2e
WR2f (GREEN)
WR2d
WR2c
WR2a
CN5301 (RED)
CN5309/ CN5304
CN5305
CN5303
CN5307
CN5306
CN5308 (NC)
WR2b

Fig. D2

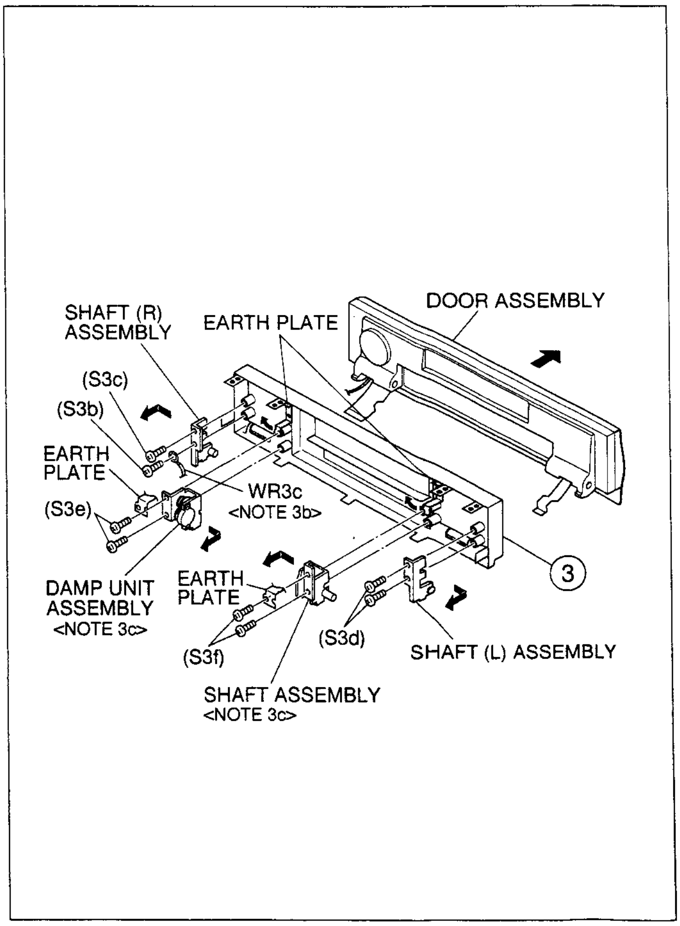

SHAFT (R) ASSEMBLY
EARTH PLATE
DOOR ASSEMBLY
(S3c)
(S3b)
EARTH PLATE
WR3c
<NOTE 3b>
(S3e)
DAMP UNIT ASSEMBLY
<NOTE 3c>
EARTH PLATE
3
(S3f)
(S3d)
SHAFT (L) ASSEMBLY
SHAFT ASSEMBLY
<NOTE 3c>

Fig. D3b

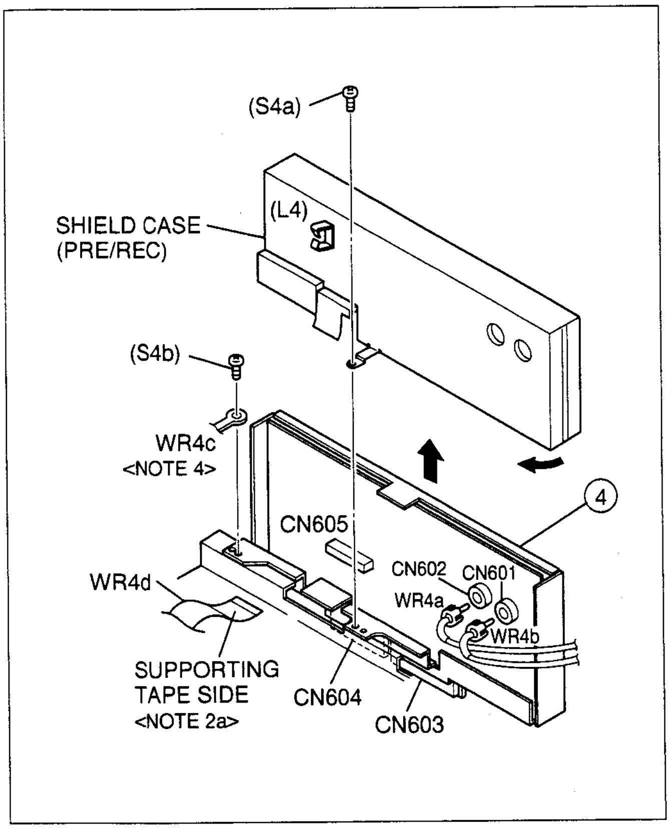

(S4a)
SHIELD CASE (PRE/REC)
(L4)
(S4b)
WR4c <NOTE 4>
CN605
4
WR4d
CN602
CN601
WR4a
WR4b
SUPPORTING TAPE SIDE <NOTE 2a>
CN604
CN603

Fig. D4

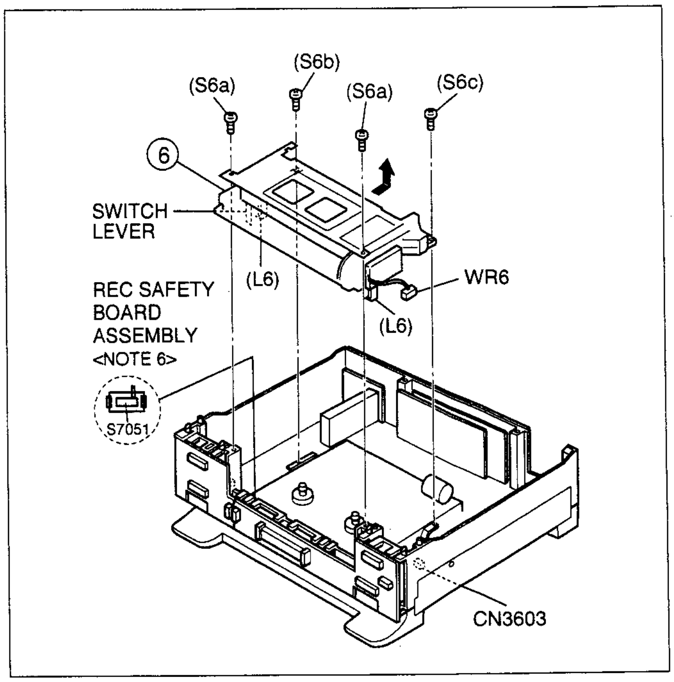

(S6b)
(S6a)
(S6a)
(S6c)
6
SWITCH LEVER
(L6)
WR6
REC SAFETY BOARD ASSEMBLY <NOTE 6>
(L6)
S7051
CN3603

Fig. D6a

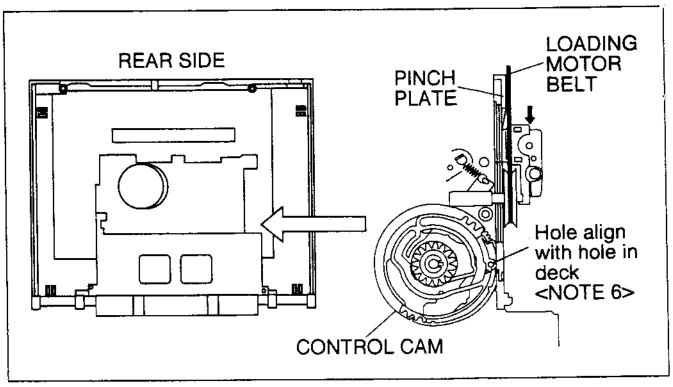

REAR SIDE
PINCH PLATE
LOADING MOTOR BELT
Hole align with hole in deck <NOTE 6>
CONTROL CAM

Fig. D6b

NOTE: When installing the DRUM assembly, secure the screws (S5) in the order of ⓐ, ⓑ, ⓒ.

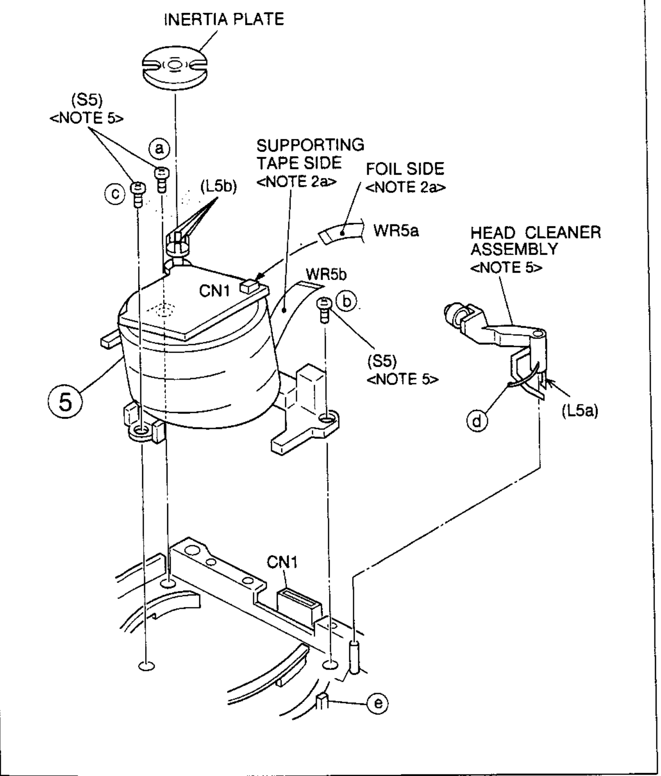

INERTIA PLATE
(S5) <NOTE 5>
a
c
(L5b)
SUPPORTING TAPE SIDE <NOTE 2a>
FOIL SIDE <NOTE 2a>
WR5a
HEAD CLEANER ASSEMBLY <NOTE 5>
CN1
WR5b
b
(S5) <NOTE 5>
5
d
(L5a)
CN1
e

Fig. D5

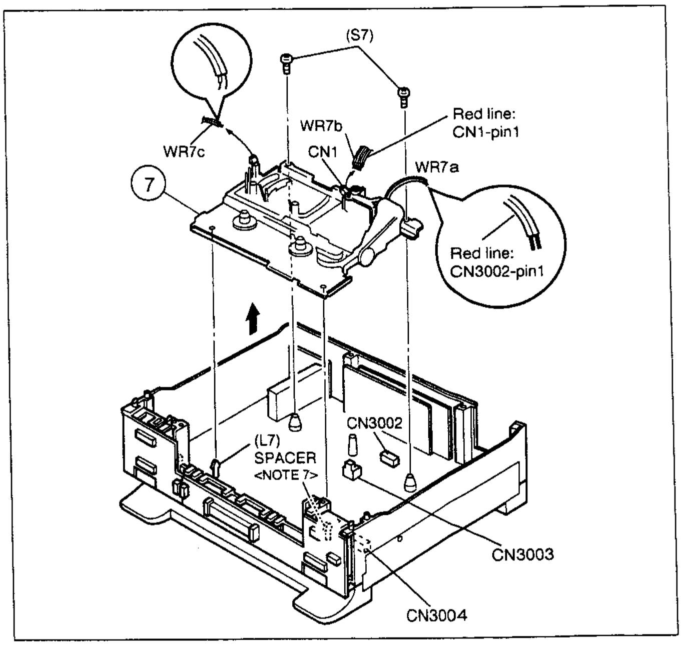

(S7)
Red line: CN1-pin1
WR7b
WR7c
CN1
WR7a
7
Red line: CN3002-pin1
CN3002
(L7) SPACER <NOTE 7>
CN3003
CN3004

Fig. D7

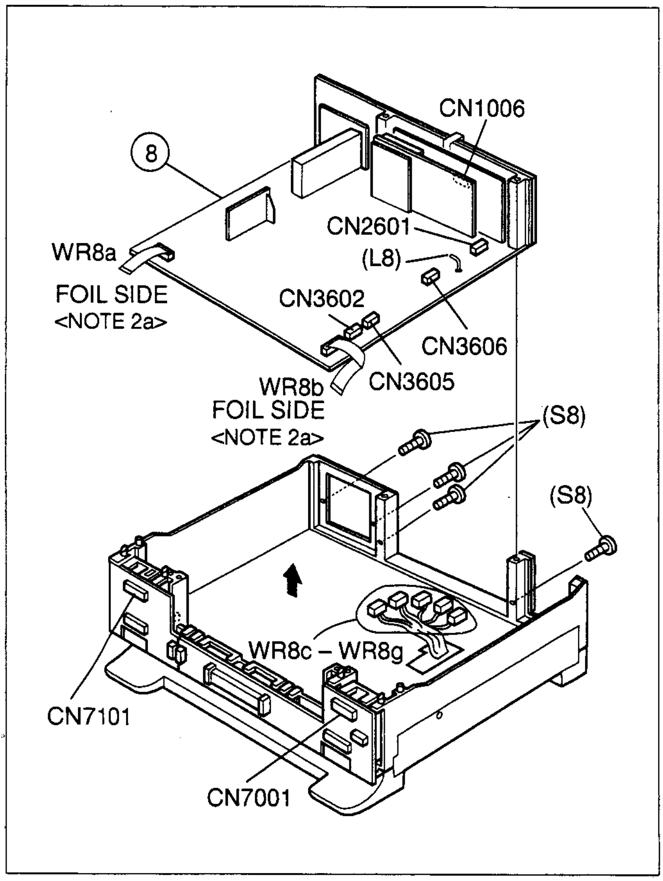

CN1006
8
WR8a
CN2601
(L8)
FOIL SIDE
<NOTE 2a>
CN3602
CN3606
WR8b
CN3605
FOIL SIDE
<NOTE 2a>
(S8)
(S8)
WR8c – WR8g
CN7101
CN7001

Fig. D8

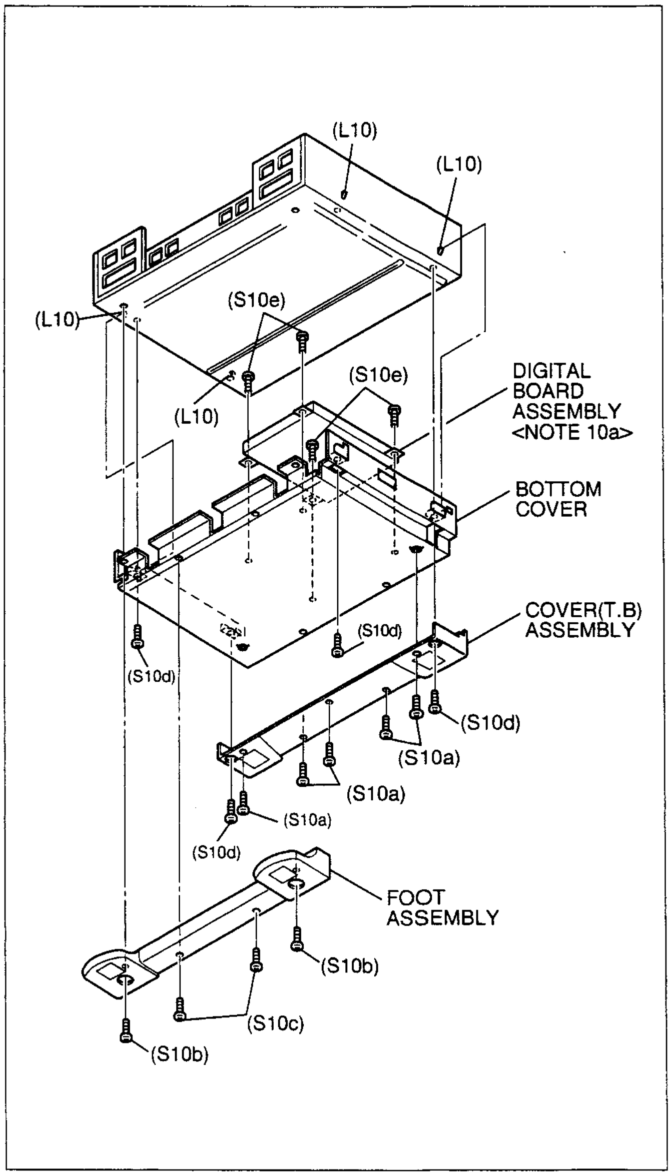

(L10)
(L10)
(L10)
(S10e)
(S10e)
(L10)
DIGITAL BOARD ASSEMBLY <NOTE 10a>
BOTTOM COVER
(S10d)
(S10d)
COVER(T.B) ASSEMBLY
(S10d)
(S10a)
(S10a)
(S10a)
(S10d)
FOOT ASSEMBLY
(S10b)
(S10c)
(S10b)

Fig. D10a

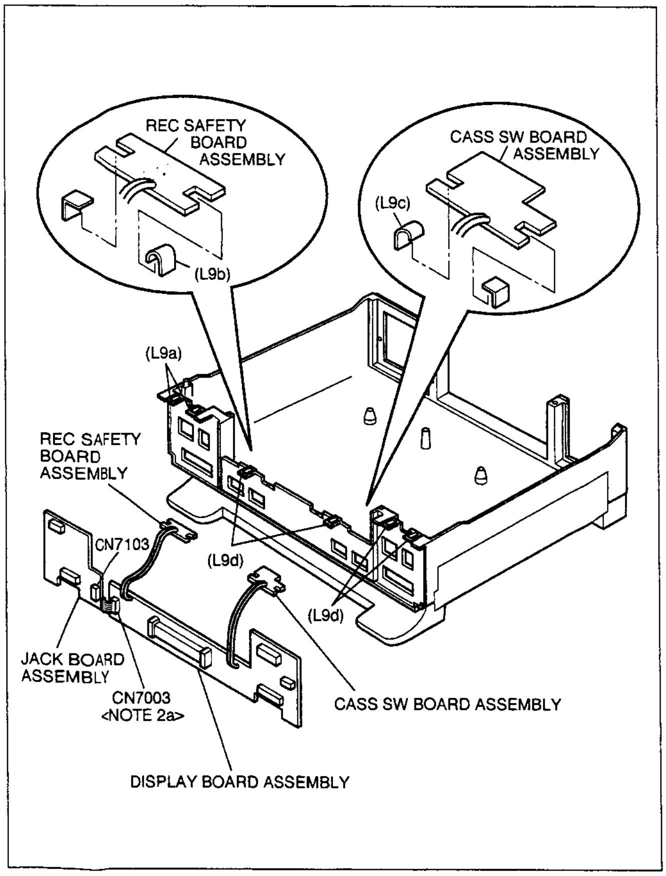

REC SAFETY BOARD ASSEMBLY
(L9b)
CASS SW BOARD ASSEMBLY
(L9c)
(L9a)
REC SAFETY BOARD ASSEMBLY
CN7103
(L9d)
(L9d)
JACK BOARD ASSEMBLY
CN7003 <NOTE 2a>
CASS SW BOARD ASSEMBLY
DISPLAY BOARD ASSEMBLY

Fig. D9

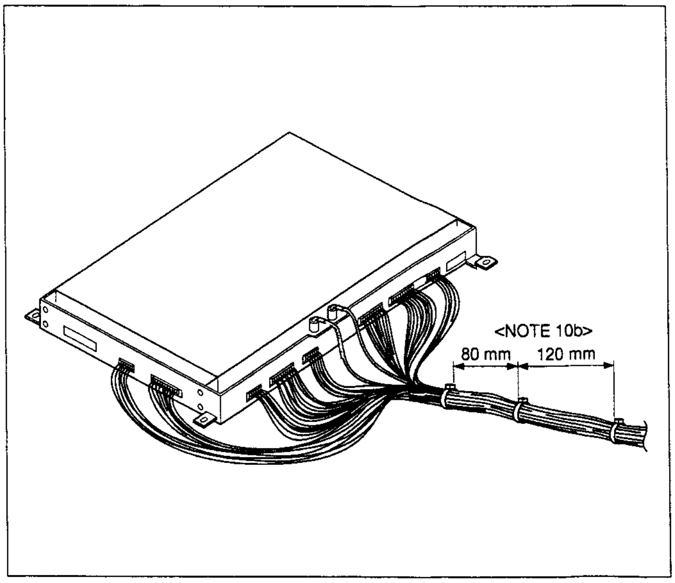


Fig. D10b

1.4 SERVICE POSITION

In order to facilitate diagnosis and the repair of the Mechanism assembly, this unit is constructed so as to allow the Mechanism and Main board assemblies to be removed together from the Bottom chassis assembly.

1.4.1 How to take out the Mechanism and MAIN board assemblies.

(1) Remove the Top cover, SWITCHING REGULATOR board assembly and Front panel assembly. (See DISASSEMBLY/ASSEMBLY METHOD.)

(2) Remove the flat wires CN7101 on the JACK board assembly, CN7001 on the DISPLAY board assembly.
(See Fig.D8 of DISASSEMBLY/ASSEMBLY METHOD.)

(3) Remove the wires CN3602, CN3605, CN3606 and CN2601 on the MAIN board assembly. (See Fig.D8 of DISASSEMBLY/ASSEMBLY METHOD.)

(4) Remove the flat wire CN1006 on the 3D SVHS board assembly. (See Fig.D8 of DISASSEMBLY/ASSEMBLY METHOD)

(5) Remove the flat wires CN601 and CN602 on the PRE/REC board assembly. (See Fig.D4 of DISASSEMBLY/ASSEMBLY METHOD)

(6) Take out 4 screws Ⓐ, 2 screws Ⓑ and 2screws Ⓒ as shown in Fig.1-4-1.

(7) Remove the Mechanism assembly (including Cassette housing) and MAIN board assembly out of the chassis as shown in Fig.1-4-2.

(8) Remove the JACK board assembly and DISPLAY board assembly (including REC SAFETY board assembly and CASSETTE SWITCH board assembly). (See DISASSEMBLY/ASSEMBLY METHOD.)

(9) Remove the DIGITAL board assembly. (See DISASSEMBLY/ASSEMBLY METHOD.)

Note: *When remove the DIGITAL board assembly, remove the foot, cover(T.B) and bottom cover together.*

(10) Connect the wires which were removed at the steps (2) to (6).

(11) Carry out diagnosis and repair as necessary as shown in Fig.1-4-3.

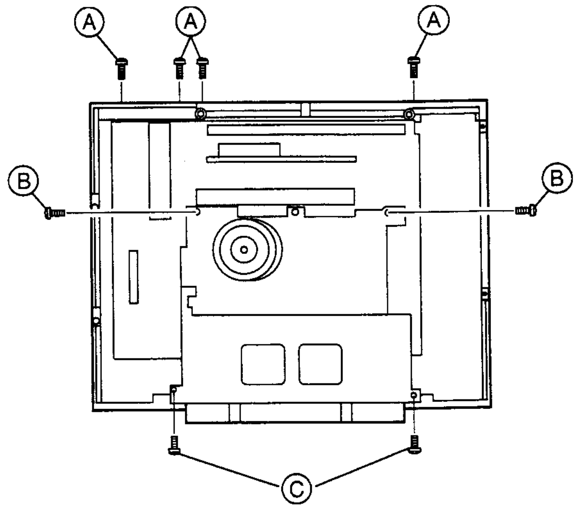


Fig. 1-4-1

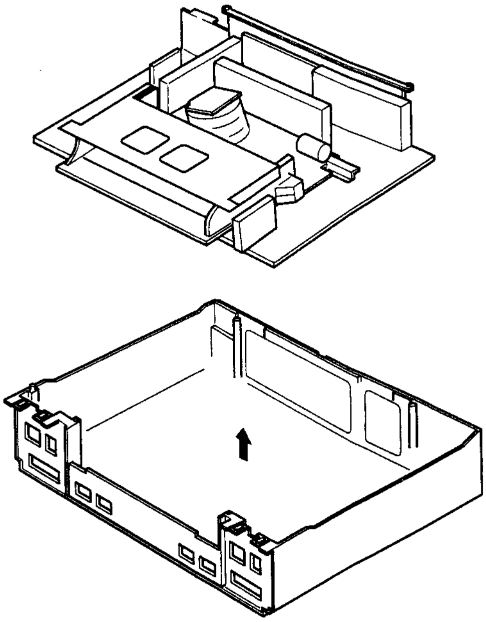


Fig. 1-4-2

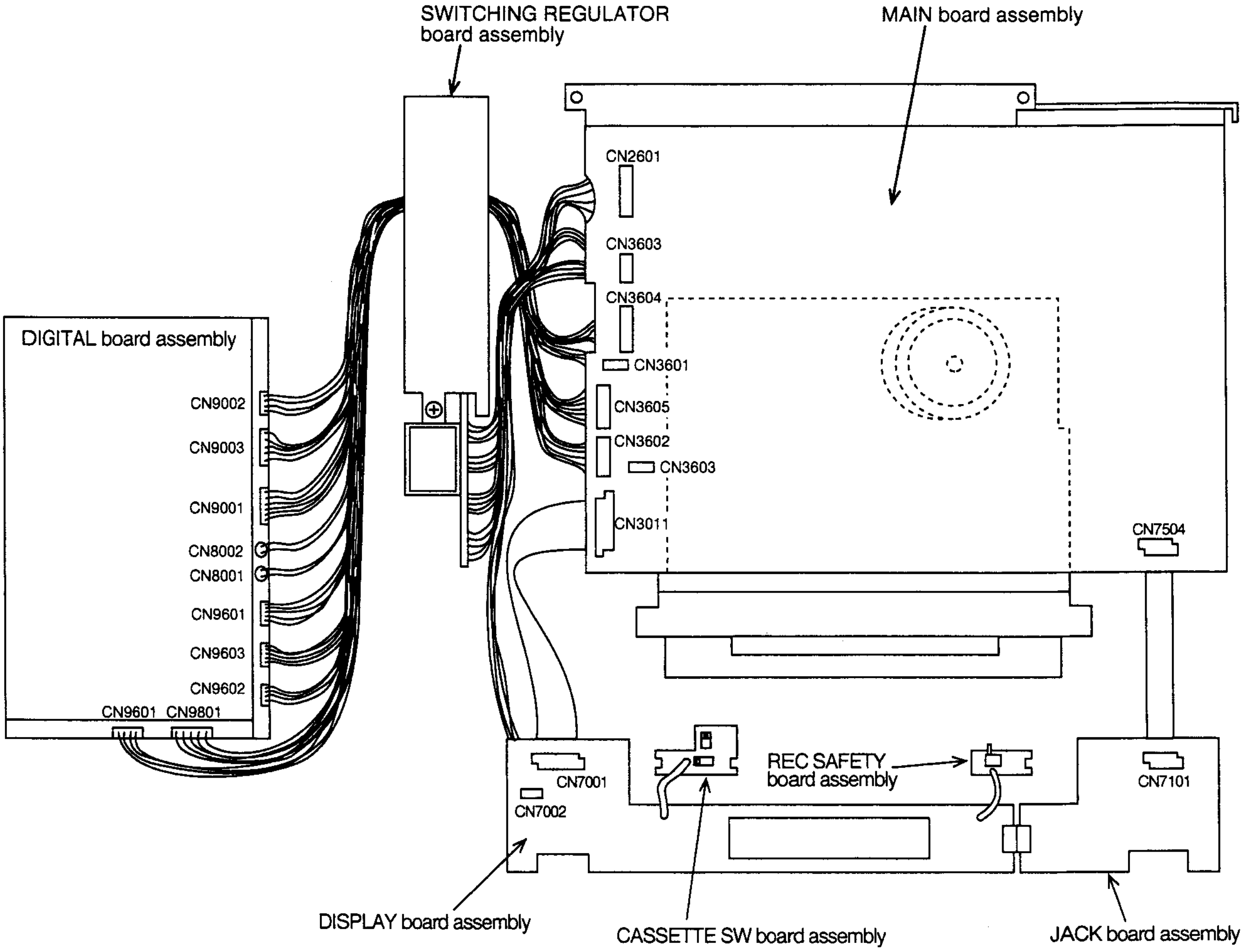

SWITCHING REGULATOR board assembly
MAIN board assembly
CN2601
CN3603
CN3604
DIGITAL board assembly
CN3601
CN9002
CN3605
CN9003
CN3602
CN3603
CN9001
CN3011
CN8002
CN8001
CN7504
CN9601
CN9603
CN9602
CN9601
CN9801
CN7001
CN7002
REC SAFETY board assembly
CN7101
DISPLAY board assembly
CASSETTE SW board assembly
JACK board assembly

Fig. 1-4-3

1.4.2 Precautions for cassette loading in the "SERVICE POSITION"

The REC SAFETY board assembly of this set detects cassette loading as well as cassette tabs. Therefore,
cassette loading in the "SERVICE POSITION" that the mechanism is disassembled from the set needs manual operation of the switches on the REC SAFETY and CASSETTE SWITCH board assemblies.

1.4.3 Cassette loading and ejection methods in the "SERVICE POSITION"

(1) Insert a cassette tape halfway in the Cassette housing assembly.
(2) Press the switch (S7051) on the REC SAFETY board assembly.
(3) When the cassette loading begins and the cassette tape goes down to the mechanism side, immediately release the switch (S7051) on the REC SAFETY board assembly to turn off and hold the status that the switch (S7053) on the CASSETTE SWITCH board assembly is turned on. (Fix the switch with adhesive tape, etc. on it to leave the switch in the ON status.)
(4) In this status, desired operations (recording, playback, fast forward, rewind, etc.) can be performed.

Note: *When the mechanism is in the service position, the safety tab of cassette tape is not detected and recording becomes possible even with a cassette tape with broken tab such as the alignment tape. Be very careful not to erase important tapes.*

(5) For ejecting the cassette tape in this status, do it in the reverse order of cassette loading mentioned above.

Note: *If the manual operation REC SAFETY switch timing is incorrect, the cassette tape may be completely or partially ejected, and the cassette tape is often ejected incompletely. In such a case, it is possible to take out the cassette tape by hand.*

(6) If it is desired to load a cassette tape again after the cassette tape in the above procedure, make sure to set the tray of the cassette housing assembly in the frontmost position prior to loading the cassette tape again.

Note: *The CASSETTE SWITCH board assembly of this set has S-VHS tape detect switch (S7052). When performing diagnostics with a VHS cassette tape, press this switch on the CASSETTE SWITCH board assembly to turn on.*

1.4.4 Opening on the chassis

The bottom chassis of this set has openings for easy access to the checkpoints and connector pins. (See Fig.1-4-4.)

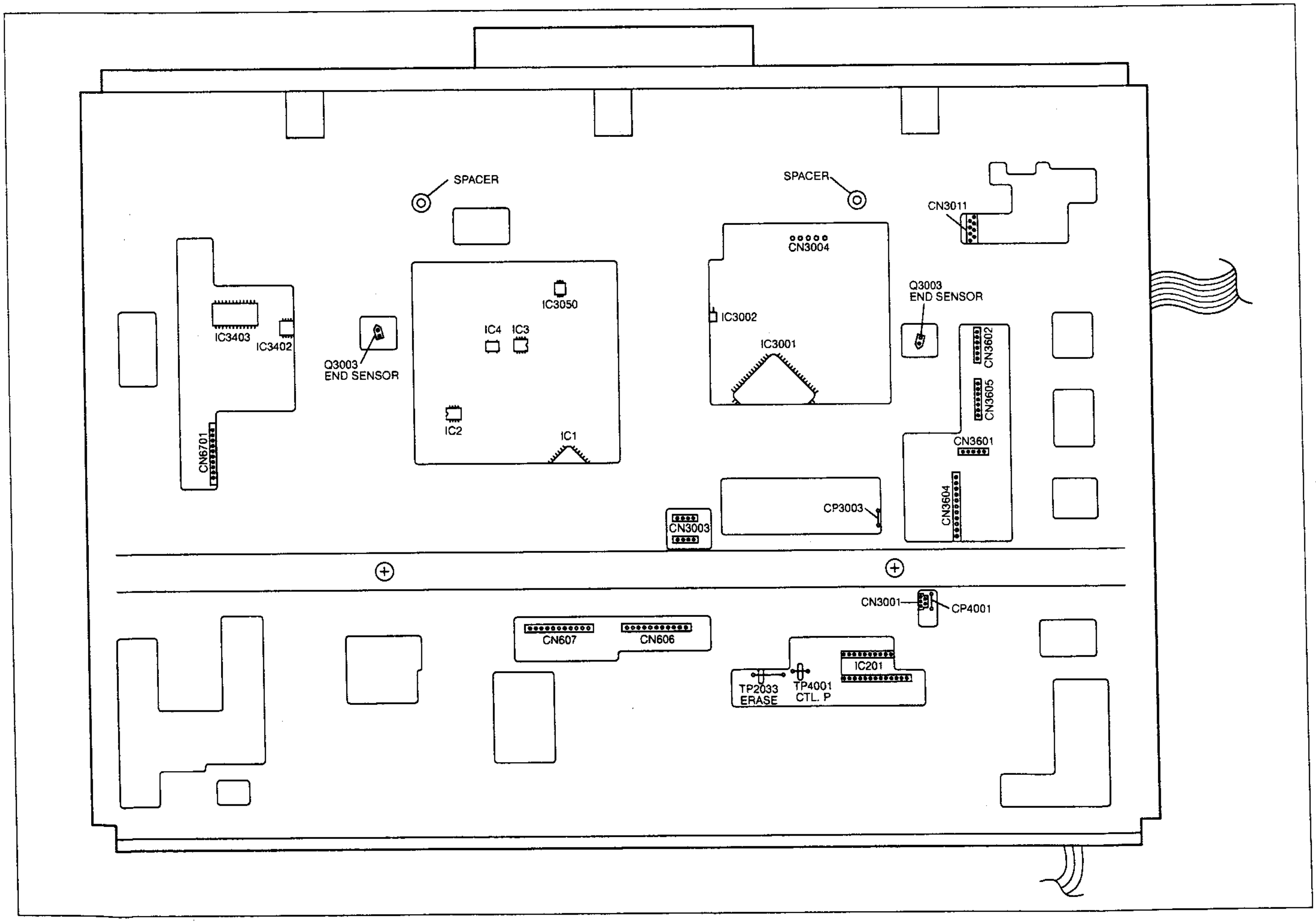


Fig. 1-4-4

1.5 MECHANISM SERVICE MODE

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "MECHANISM SERVICE MODE."

Note: *Before disassembling and assembling always refer to "HOW TO REMOVE THE MAJOR PARTS."*

1.5.1 How to set the "MECHANISM SERVICE MODE"

(1) Unplug the power plug from the power outlet.
(2) Remove the top cover and front panel assembly.
(3) Remove the cassette housing assembly. (See "HOW TO REMOVE THE MAJOR PARTS.")
(4) Short-circuit TP7001(TEST) and TPGND(GND) on the DISPLAY board assembly.
(5) Plug the power plug into the power outlet.
The power of the set turn on, the loading operation occurs, and the power turns off.
(6) Switch the power on.
The mechanism mode moves, and the mechanism is in the "MECHANISM SERVICE MODE."
Now the desired operation is possible.

Note: For operation of the mechanism mode, use the remote controller or the operation button after connecting the door assembly to the set.

1.5.2 How to exit from the "MECHANISM SERVICE MODE"

(1) Unplug the power plug from the power outlet.
(2) Remove short-circuiting of TP7001(TEST) and TPGND(GND) on the DISPLAY board assembly.
(3) Plug the power plug into the power outlet.
The power of the set turn on, the unloading operation occurs, and the power turns off.

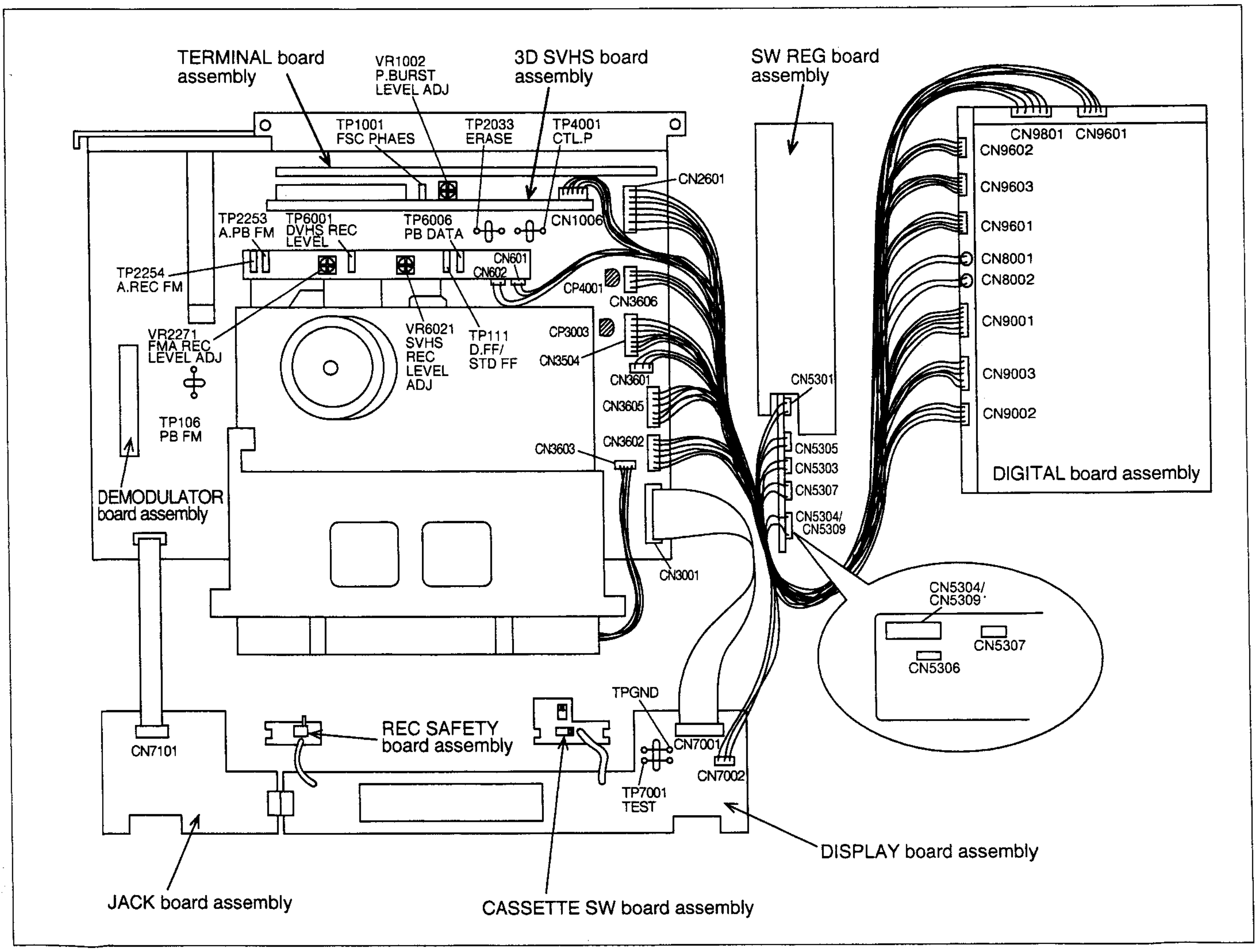

TERMINAL board assembly
VR1002 P.BURST LEVEL ADJ
3D SVHS board assembly
SW REG board assembly
TP1001 FSC PHAES
TP2033 ERASE
TP4001 CTL.P
CN2601
CN1006
TP2253 A.PB FM
TP6001 DVHS REC LEVEL
TP6006 PB DATA
TP2254 A.REC FM
CN601
CN602
CP4001
CN3606
VR2271 FMA REC LEVEL ADJ
VR6021 SVHS REC LEVEL ADJ
TP111 D.FF/ STD FF
CP3003
CN3504
CN3601
CN3605
CN3602
CN3603
TP106 PB FM
DEMODULATOR board assembly
CN3001
CN9801
CN9601
CN9602
CN9603
CN9601
CN8001
CN8002
CN9001
CN9003
CN9002
DIGITAL board assembly
CN5301
CN5305
CN5303
CN5307
CN5304/ CN5309
CN5304/ CN5309
CN5307
CN5306
TPGND
REC SAFETY board assembly
CN7101
CN7001
CN7002
TP7001 TEST
DISPLAY board assembly
JACK board assembly
CASSETTE SW board assembly

Fig. 1-5-1

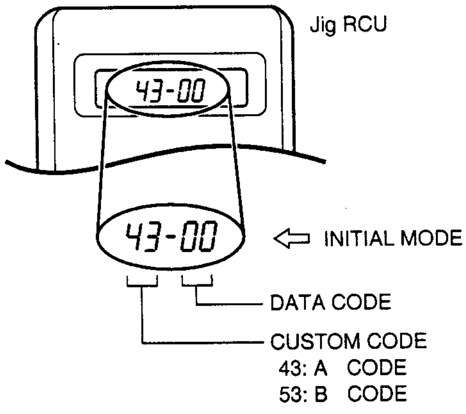
1.6 EMERGENCY DISPLAY FUNCTION

This unit has a function for storing the history of the past two emergencies (EMG) and displaying them on each FDP. With the status of the set and mechanism at the moment an emergency occurred can also be confirmed.

FDP display switching

→ FDP display 0 : 00 : 00 Normal display
↓
E : ** : ** Emergency content display (E:Latest:Previous)
↓
△△:□□: ×× Emergency detail display

NOTES: • *The emergency detail display shows the information on the latest emergency.*
It becomes "– – : – – : – –" when there is no latest emergency record.
- *When using the Jig RCU, transmit the code "7F" to set the Jig RCU to receive mode.*
- *When using the Jig RCU, set its custom code to match the custom code of the VCR.*



[Data transmitting method]
Depress the "⇡" (3) button after the data code is set.

Fig. 1-7-1 Jig RCU

1.6.1 Displaying the emergency information

(1) Transmit the code "59" from the Jig RCU.
The FDP shows the emergency content in the form of "E:\**:**".

Example 1 E : 01 : 03
03 — Previous emergency
01 — Latest emergency

Example 2 E : – – : – – ← No emergency record

NOTE: • *For the emergency content, see "1.6.3 Emergency content description".*

(2) Transmit the code "59" from the Jig RCU again.
The FDP shows the emergency detail information in the form of "△△ : □□ : ××".
△△ : Deck operation mode at the moment of emergency
□□ : Mechanism mode at the moment of emergency
×– : Mechanism sensor information at the moment of emergency
–× : Mechanism mode position at the moment of emergency

NOTE: • *For the emergency detail information, see "1.6.4 Emergency detail description".*

(3) Transmit the code "59" from the Jig RCU once again to reset the display.

1.6.2 Clearing the emergency history

(1) Display the emergency history.
(2) Transmit the code "36" from the Jig RCU.
(3) Reset the emergency display.

1.6.3 Emergency content description

NOTE: *Emergency contents "E08/E09" are for the model with Dynamic Drum (DD).*

FDP	CONTENT	CAUSE
E01: Loading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the loading direction, [E:01] is identified and the power is turned off.	① The mechanism is locked in the middle of mode transition. ② The mechanism is locked at the loading end due to the encoder position reading error during mode transition. ③ Power is not supplied to the loading MDA.
E02: Unloading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the unloading direction, [E:02] is identified and the power is turned off.	① The mechanism is locked in the middle of mode transition. ② The mechanism is locked at the loading end due to the encoder position reading error during mode transition. ③ Power is not supplied to the loading MDA.
E03: Take Up Reel Pulse EMG	When the take-up reel pulse has not been generated for more than 4 seconds in the capstan rotating mode, [E:03] is identified, the pinch rollers are turned off and stopped, and the power is turned off. However, the reel EMG is not detected in Slow/Still modes.	① The take-up reel pulse is not generated in the FWD transport modes (PLAY/FWD SEARCH/FF, etc.) because; 1) The idler gear is not meshed with the take-up reel gear; 2) The idler gear is meshed with the take-up reel gear, but incapable of winding due to too large mechanical load (abnormal tension); 3) The take-up reel sensor does not output the FG pulse. ② The supply reel pulse is not generated in the REV transport modes (REV SEARCH/REW, etc.) because; 1) The idler gear is not meshed with the supply reel gear. 2) The idler gear is meshed with the supply reel gear, but incapable of winding due to too large a mechanical load (abnormal tension); 3) The supply reel sensor does not output the FG pulse. ③ Power is not supplied to the reel sensors.
E04: Drum FG EMG	When the drum FG pulse has not been input for more than 3 seconds in the drum rotating mode, [E:04] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	① The drum could not start or the drum rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high; 2) The tape is damaged or a foreign object (grease, etc.) adheres to the tape. ② The drum FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (hall device) of the drum is faulty. ③ The drum control voltage (DRUM CTL V) is not supplied to the MDA. ④ Power is not supplied to the drum MDA.
E05: Cassette Eject EMG	When the eject operation does not complete in 3 seconds after the start, [E:05] is identified, the pinch rollers are turned off and stopped, and the power is turned off. When the cassette insertion operation does not complete in 3 seconds after the start, the cassette is ejected. In addition, when the operation does not complete within 3 seconds after the start, [E:05] is also identified and the power is turned off immediately.	① The cassette cannot be ejected due to a failure in the drive mechanism of the housing. ② When the housing load increases during ejection, the loading motor is stopped because of lack of headroom in its drive torque. (Housing load increasing factors: Temperature environment (low temperature, etc.), mechanism wear or failure. ③ The sensor/switch for detecting the end of ejection are not functioning normally. ④ The loading motor drive voltage is lower than specified or power is not supplied to the motor (MDA). ⑤ When the user attempted to eject a cassette, a foreign object (or perhaps the user's hand) was caught in the opening of the housing.
E06: Capstan FG EMG	When the capstan FG pulse has not been generated for more than 1 second in the capstan rotating mode, [E:06] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	① The capstan could not start or the capstan rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high (mechanical lock); 2) The tape is damaged or a foreign object (grease, etc.) is adhered to the tape (occurrence of tape entangling, etc.). ② The capstan FG pulse did not reach the System controller CPU because; 3) The signal circuit is disconnected in the middle; 4) The FG pulse generator (MR device) of the capstans is faulty. ③ The capstan control voltage (CAPSTAN CTL V) is not supplied to the MDA. ④ Power is not supplied to the capstan MDA.
E07: SW Power Short-Circuit EMG	When short-circuiting of the SW power supply with GND has lasted for 0.5 second or more, [E:07] is identified, all the motors are stopped and the power is turned off.	① The SW 5 V power supply circuit is shorted with GND. ② The SW 12 V power supply circuit is shorted with GND.
E08: DD Initialized (Absolute Position Sensor) EMG	When DD tilting does not complete in 4 seconds, [E:08] is identified, the tilt motor is stopped and the power is turned off.	① The absolute value sensor is defective. (The soldered parts have separated.) ② The pull-up resistor at the absolute sensor output is defective. (The soldered parts have separated.) ③ Contact failure or soldering failure of the pins of the connector (board-to-board) to the absolute value sensor. ④ The absolute value sensor data is not sent to the System Controller CPU.
E09: DD FG EMG	When the DD FG pulse is not generated within 2.5 seconds, [E:09] is identified, the tilt motor is stopped and the power is turned off.	① The FG sensor is defective. (The soldered parts have separated.) ② The pull-up resistor at the FG sensor output is defective. (The soldered parts have separated.) ③ Contact failure or soldering failure of the pins of the connector (board-to-board) to the FG sensor. ④ The power to the sensor is not supplied. (Connection failure/soldering failure) ⑤ The FG pulse is not sent to the System Controller CPU. ⑥ The tilt motor is defective. (The soldered parts have separated.) ⑦ The drive power to the tilt motor is not supplied. (Connection failure/soldering failure) ⑧ The tilt motor drive MDA - IC is defective. ⑨ Auto-recovery of the DD tilting cannot take place due to overrun.
E0A: Supply Reel Pulse EMG	When the supply reel pulse has not been generated for more than 10 seconds in the capstan rotating mode, [E:0A] is identified and the cassette is ejected (but the power is not turned off). However, note that the reel EMG is not detected in the SLOW/STILL mode.	① The supply reel pulse is not generated in the FWD transport mode (PLAY/FWD SEARCH/FF, etc.) because; 1) PLAY/FWD or SEARCH/FF is started while the tape in the inserted cassette is cut in the middle; 2) A mechanical factor caused tape slack inside and outside the supply reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the FWD transport, so the pulse is not generated until then; 3) The FG pulse output from the supply reel sensor is absent. ② The take-up reel pulse is not generated in the REV transport mode (REV SEARCH/REW, etc.). 1) REV SEARCH/REW is started when the tape in the inserted cassette has been cut in the middle; 2) A mechanical factor caused tape slack inside and outside the take-up reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the REV transport, so the pulse will not be generated until that time; 3) The FG pulse output from the take-up reel sensor is absent. ③ The power to a reel sensor is not supplied.
EU1: Head clog warning	Presupposing the presence of the control pulse output in the PLAY mode, when the value obtained by mixing the two V.FM output channels (without regard to the A.FM output) has remained below a certain threshold level for more than 10 seconds, [E:U1] is identified and recorded in the emergency history. During the period in which a head clog is detected, the FDP and OSD repeat the "3-second warning display" and "7-second noise picture display" alternately. EMG code : "E:U1" FDP : "U:01" OSD : "Try cleaning tape." The head clog warning is reset when the above-mentioned threshold has been exceeded for more than 2 seconds or the mode is changed to another mode than PLAY.	

Table 1-6-1

1.6.4 Emergency detail description

[FDP display] △△:□□:×× (Deck operation mode: Mechanism operation mode: Mechanism sensor information & mechanism mode position)

△△: Deck Operation Mode

△△	Deck Operation Mode
00	STOP with pinch roller pressure off (or tape present with P.OFF)
01	STOP with pinch roller pressure on
04	PLAY
0E	REC
11	Cassette ejected
22	FF
26	FWD SEARCH (variable speed) including x2-speed
2E	INSERT REC
43	REW
47	REV SEARCH (variable speed)
4C	AUDIO DUB
6E	INSERT REC (VIDEO + AUDIO)
84	FWD STILL/SLOW
85	REV STILL/SLOW
8F	REC PAUSE
AF	INSERT REC PAUSE
CD	AUDIO DUB PAUSE
EF	INSERT REC (VIDEO + AUDIO) PAUSE

Table 1-6-2

□□: Mechanism Operation Mode

□□	Mechanism Operation Mode
00	STOP with pinch roller pressure off
01	STOP with pinch roller pressure on
02	U/L STOP (or tape being loaded)
04	PLAY
05	PLAY (x1-speed playback using JOG)
0E	REC
11	Cassette ejected
22	FF
26	FWD SEARCH
2E	INSERT REC
43	REW
47	REV SEARCH
4C	AUDIO DUB
6E	INSERT REC (VIDEO + AUDIO)
84	FWD STILL/SLOW
85	REV STILL/SLOW
8F	REC PAUSE
AF	INSERT REC PAUSE
C7	REV SEARCH (x1-speed reverse playback using JOG)
CD	AUDIO DUB PAUSE
EF	INSERT REC (VIDEO + AUDIO) PAUSE
F0	Mechanism being initialized
F1	POWER OFF as a result of EMG

Table 1-6-3

×– : Mechanism Sensor Information

×–	Mechanism Sensor Information			
	CASS SW	**REC SAFETY SW**	**START SENSOR**	**END SENSOR**
0-	ON (Cassette present)	OFF (Tab broken)	ON	ON
1-	ON (Cassette present)	OFF (Tab broken)	ON	OFF
2-	ON (Cassette present)	OFF (Tab broken)	OFF	ON
3-	ON (Cassette present)	OFF (Tab broken)	OFF	OFF
4-	ON (Cassette present)	ON (Tab present)	ON	ON
5-	ON (Cassette present)	ON (Tab present)	ON	OFF
6-	ON (Cassette present)	ON (Tab present)	OFF	ON
7-	ON (Cassette present)	ON (Tab present)	OFF	OFF
8-	OFF (Cassette absent)	OFF (Tab broken)	ON	ON
9-	OFF (Cassette absent)	OFF (Tab broken)	ON	OFF
A-	OFF (Cassette absent)	OFF (Tab broken)	OFF	ON
B-	OFF (Cassette absent)	OFF (Tab broken)	OFF	OFF
C-	OFF (Cassette absent)	ON (Tab present)	ON	ON
D-	OFF (Cassette absent)	ON (Tab present)	ON	OFF
E-	OFF (Cassette absent)	ON (Tab present)	OFF	ON
F-	OFF (Cassette absent)	ON (Tab present)	OFF	OFF

Table 1-6-4

–× : Mechanism Mode Position

–×	Mechanism Mode Position
-0	Tape being loaded/unloaded (When the pole base is located on the rear side of the position just beside the drum)
-1	Tape being loaded/unloaded (When the pole base is located on the front side of the position jist beside the drum)
-2	STOP with pinch roller pressure off
-3	REV,REV STILL/SLOW position
-4	EJECT position, U/L STOP position
-5	FWD, FWD STILL/SLOW position
-6	FF/REW position
-7	Intermediate position during transition between other mechanism modes

NOTE: *As the display is always "-7" at any intermediate position between mechanism mode, the position of transitory emergency may sometimes not be locatable.*

Table 1-6-5

< Mechanism mode >

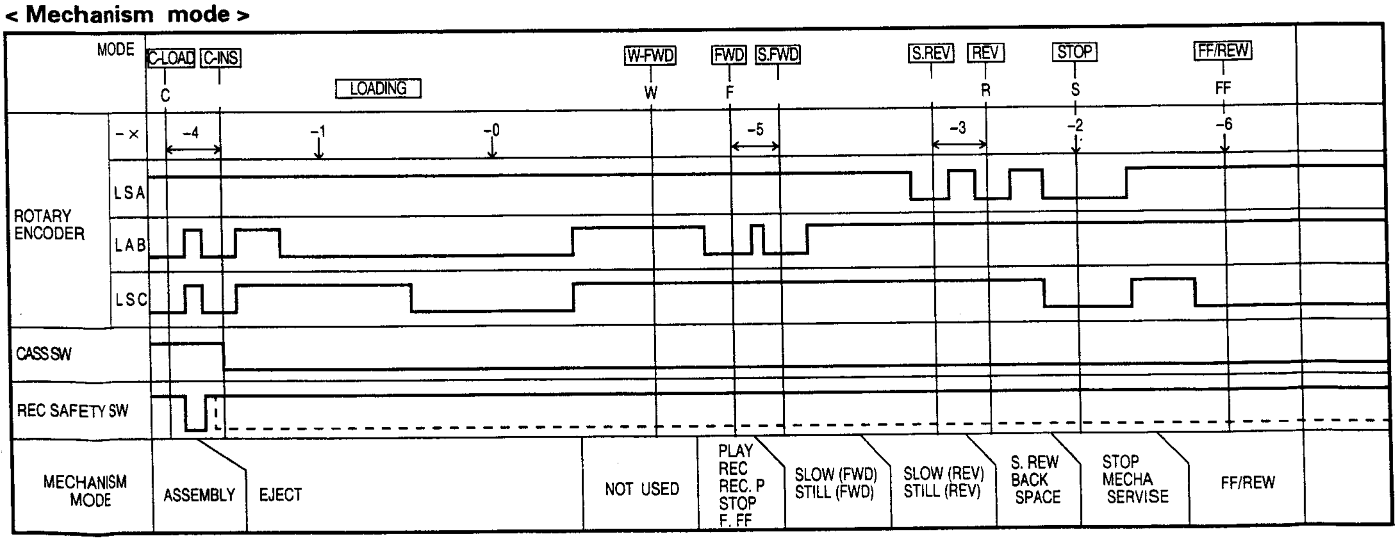

MODE
C-LOAD
C-INS
LOADING
W-FWD
FWD
S.FWD
S.REV
REV
STOP
FF/REW
C
W
F
R
S
FF
–×
-4
-1
-0
-5
-3
-2
-6
ROTARY ENCODER
LSA
LAB
LSC
CASS SW
REC SAFETY SW
MECHANISM MODE
ASSEMBLY
EJECT
NOT USED
PLAY
REC
REC. P
STOP
F. FF
SLOW (FWD)
STILL (FWD)
SLOW (REV)
STILL (REV)
S. REW
BACK
SPACE
STOP
MECHA
SERVISE
FF/REW

Table 1-6-6

1.7 SYSCON CIRCUIT

1.7.1 Syscon CPU pin function (IC3001)

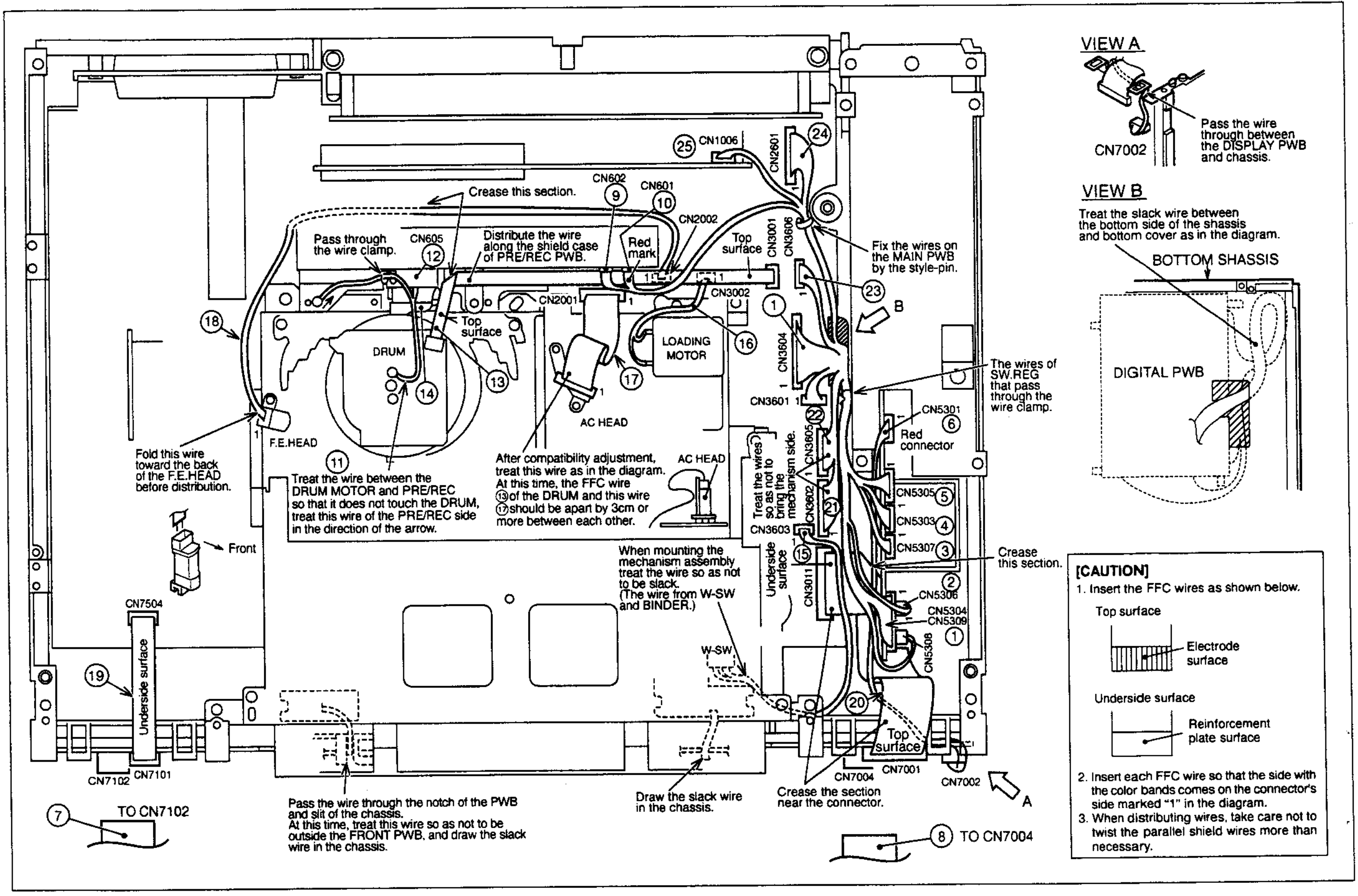
PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(–)	IN	CTL(–) SIGNAL
4	CTLBIAS	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMPOUT	OUT	CTL PULSE OUTPUT
7	CTLSMTIN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVCC	-	SYSTEM POWER
10	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
11	NORM/MESEC/S	IN	SVHS MODE:H
12	SECAM DET/KILLER OUT	-	NC
13	VIDEO ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
14	START SENSOR	IN	START SENSOR
15	END SENSOR	IN	END SENSOR
16	IND(L)	IN	AUDIO INPUT (LCH) FOR THE FDP AUDIO INDICATOR
17	IND(R)	IN	AUDIO INPUT(RCH) FOR THE FDP AUDIO INDICATOR
18	WA_DET.SCR_ID	IN	SCRAMBLECONTROL INPUT(SCRAMBLE:H)
19	D.ENV/HS1.ENV	IN	ENV.(D OR HS1) INPUT
20	BS ANT/AFC	IN	TUNING CLOCK
21	LED/RF AGC	-	NC
22	A.ENV/NL(L),HS2.ENV	IN	ENV.(A OR HS2) INPUT
23	AVSS	-	GND FOR ANALOG CIRCUIT
24	TU CE	OUT	CHIP ENABLE OF THE TUNER UNIT
25	LSA	IN	MECHANISM MODE DETECT(A)
26	LSB	IN	MECHANISM MODE DETECT(B)
27	LSC	IN	MECHANISM MODE DETECT(C)
28	CAP REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD:H/REV:L)
29	RC	IN	REMOTE CONTROL DATA INPUT
30	R.PAUSE/COMPU IN	IN	REMOTE PAUSE CONTROL
31	P50_IN/P.SAVE(L)	IN	CONTROL SIGNAL FOR TV LINK/NC
32	LMC3	OUT	LOADING MOTOR DRIVE(3)
33	P50 OUT/COMPU OUT	OUT	CONTROL SIGNAL FOR TV LINK
34	OSD_CS	OUT	CHIP SELECT FOR THE ON SCREEN IC
35	LMC1	OUT	LOADING MOTOR DRIVE(1)
36	SUB_BUZY	IN	DATA TRANSMISSION CONTROL SIGNAL INPUT
37	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
38	SB G(PWM)	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
39	STB/TEST	OUT	STROBE SIGNAL (FOR FDP DRIVER)
40	POWER DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
41	REC SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
42	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
43	VSS	-	GND
44	RMO,BIL_SEL,PERI1S/FRONT_YC(H)	IN	INPUT FOR THE TERMINAL SLIDE SW POSI IN THE SAT MODE/NC
45	VCC	-	SYSTEM POWER
46	HOST_DATA_IN	IN	D-VHS HOST CPU DATA INPUT
47	HOST_DATA_OUT	OUT	D-VHS HOST CPU DATA OUTPUT
48	HOST_SCLK	OUT	DATA TRANSFER CLOCK FOR HOST CPU
49	I2C DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE ON-SCREEN IC
50	I2C CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE ON-SCREEN IC
51	S.DATA TOSYS	IN	SERIAL DATA TRANSFER OUTPUT FROM THE ON-SCREEN IC TO THE FDP DRIVER
52	S.DATA FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
53	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
54	SP FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
55	TU FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
56	EDS(H),BIT_IN(H)	-	NC

Table 1-7-1 SYSCON CPU pin function(1/2)

PIN NO.	LABEL	IN/OUT	FUNCTION
57	LCM2	OUT	LOADING MOTOR DRIVE(2)
58	JUST_CLK,LOCK(L)	IN	TUNING PLL LOCK DETECT:L
59	HOST_BUSY	I/O	D-VHS HOST CPU BUSY
60	TU CLK	OUT	CLOCK FOR DATA TRANSFER TO THE TUNER UNIT
61	TU DATA	OUT	TUNING DATA
62	FWE	-	NC
63	NMI(L)	-	NC
64	X2	-	TIMER CLOCK (32.768KHz)
65	X1	-	TIMER CLOCK (32.768KHz)
66	RES(L)	-	RESET TERMINAL (RESETON:L)
67	OSC1(IN)	-	MAIN SYSTEM CLOCK(10MHz)
68	VSS	-	GND
69	OSC2(OUT)	-	MAIN SYSTEM CLOCK(10MHz)
70	VCC	-	SYSTEM POWER
71	MODE	-	NC
72	SUB_CS	OUT	CHIP SELECT FOR THE SUB CPU
73	TU V MUTE(H)	OUT	TUNER VIDEO CONTROL (MUTE:H)
74	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)
75	I2C CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	CH1_RECST(H)	OUT	REC START CONTROL FOR CH1
78	CH2_RECST(H)	OUT	REC START CONTROL FOR CH2
79	HOST_CS	OUT	CHIP SELECT
80	V.P.CTL	OUT	V.PULSE CONTROL, V COMPENSATION DURING SPECIAL PLAYBACK
81	ANT_CTL(L)/EDS_CS,SECAM(H)	OUT	SECAM:H
82	VCC	-	SYSTEM POWER
83	SLOW_P/AT_ON	OUT	MEMORY TIMING CONTROL,
84	VSS	-	GND
85	SP SHORT(H)	OUT	MODE SELECT
86	LP SHORT(H)	OUT	MODE SELECT
87	FLY_ON(H)	OUT	REC TIMING CONTROL(FLY ERASE ON:H)
88	A.REC ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)	OUT	SPECIAL PB:H
90	REF30	IN	REFERENCE SIGNAL INPUT(30Hz)
91	REF5	IN	REFERENCE SIGNAL INPUT(5Hz)
92	CTL360	OUT	NOT USED
93	REC_AREA	OUT	D-VHS REC AREA CTL (STD MODE: H/LS3 MODE: ⎍⎽⎍)
94	JSA	IN	INPUT FOR THE JOG SHUTTLE
95	SUB_RESET	OUT	RESET SUB CPU
96	SYNC_DET(H)	IN	DETECTION OF VIDEO SYNC SIGNAL (DETECTED:H)
97	JSB	IN	INPUT FOR THE JOG SHUTTLE
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF/HS2_FF	OUT	HEAD SWITCHING CONTROL
100	D.FF/STD_FF/HS1_FF	OUT	HEAD SWITCHING CONTROL
101	CAPPWM	OUT	CAPSTAN MOTOR CONTROL
102	DRUMPWM	OUT	DRUM MOTOR CONTROL
103	HOST_RESET	OUT	RESET FOR THE HOST CPLU
104	HS_RECST(H)	IN	NOT USED
105	CASS_SW	IN	CASS IN DETECT(C.IN:L)
106	CTL30	IN	NOT USED
107	DPG	IN	DRUM PICKUP PULSE INPUT (SWITCHING PULSE)
108	DFG	IN	DRUM FG PULSE INPUT
109	VCC	-	SYSTEM POWER
110	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
111	VSS	-	GND
112	CTLREF	-	CTL REFERENCE VOLTAGE

Table 1-7-2 SYSCON CPU pin function(2/2)

1.8 CONNECTOR (WIRE) CONNECTIONS


CN1006
CN2601
CN602
CN601
CN2002
CN605
Red mark
Top surface
CN3001
CN3606
CN2001
CN3002
LOADING MOTOR
DRUM
Top surface
AC HEAD
F.E.HEAD
CN3604
CN3601
CN3605
CN3602
CN3603
CN3011
Underside surface
CN5301
Red connector
CN5305
CN5303
CN5307
CN5306
CN5304
CN5309
CN5308
B
Front
CN7504
Underside surface
CN7102
CN7101
W-SW
Top surface
CN7004
CN7001
CN7002
A
VIEW A
CN7002
VIEW B
BOTTOM SHASSIS
DIGITAL PWB
①
②
③
④
⑤
⑥
⑦ TO CN7102
⑧ TO CN7004
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕

Crease this section.

Pass through the wire clamp.

Distribute the wire along the shield case of PRE/REC PWB.

Fix the wires on the MAIN PWB by the style-pin.

Fold this wire toward the back of the F.E.HEAD before distribution.

Treat the wire between the DRUM MOTOR and PRE/REC so that it does not touch the DRUM, treat this wire of the PRE/REC side in the direction of the arrow.

After compatibility adjustment, treat this wire as in the diagram. At this time, the FFC wire ⑬of the DRUM and this wire ⑰should be apart by 3cm or more between each other.

Treat the wires so as not to bring the mechanism side.

The wires of SW.REG that pass through the wire clamp.

When mounting the mechanism assembly treat the wire so as not to be slack. (The wire from W-SW and BINDER.)

Crease this section.

Pass the wire through the notch of the PWB and slit of the chassis. At this time, treat this wire so as not to be outside the FRONT PWB, and draw the slack wire in the chassis.

Draw the slack wire in the chassis.

Crease the section near the connector.

Pass the wire through between the DISPLAY PWB and chassis.

Treat the slack wire between the bottom side of the shassis and bottom cover as in the diagram.

[CAUTION]

1. Insert the FFC wires as shown below.

Top surface — Electrode surface

Underside surface — Reinforcement plate surface

2. Insert each FFC wire so that the side with the color bands comes on the connector's side marked "1" in the diagram.
3. When distributing wires, take care not to twist the parallel shield wires more than necessary.

Fig. 1-8-1

Wire No.	Symbol	Connection					Pin No.	Type	Fig.No.
		Connected point			Connected point				
①	WR2a	SW.REG	CN5309,5304	⇔	MAIN	CN3604	11	WIRE	D2
②	WR2b	SW.REG	CN5306	⇔	DIGITAL	CN9601	3	WIRE	D2
③	WR2c	SW.REG	CN5307	⇔	DIGITAL	CN9602	4	WIRE	D2
④	WR2d	SW.REG	CN5303	⇔	MAIN	CN3601	5	WIRE	D2
⑤	WR2e	SW.REG	CN5305	⇔	DIGITAL	CN9603	6	WIRE	D2
⑥	WR2f	SW.REG	CN5301	⇔	DISPLAY	CN7002	5	WIRE	D2
⑦	WR3a	JACK	CN7102	⇔	DOOR	–	12	FFC	D3a
⑧	WR3b	DISPLAY	CN7004	⇔	DOOR	–	22	FFC	D3a
⑨	WR4a	PRE/REC	CN602	⇔	DIGITAL	CN8001	1	COAXIAL WIRE	D4
⑩	WR4b	PRE/REC	CN601	⇔	DIGITAL	CN8002	1	COAXIAL WIRE	D4
⑪	WR4c	PRE/REC	–	⇔	STATOR	–	1	GND WIRE	D4
⑫	WR4d	PRE/REC	CN605	⇔	DRUM	–	7	FPC	D4
–	–	PRE/REC	CN603	⇔	MAIN	CN606	9	BOARD TO BOARD	D4
–	–	PRE/REC	CN604	⇔	MAIN	CN607	10	BOARD TO BOARD	D4
⑬	WR5a	STATOR	CN1	⇔	MAIN	CN3001	5	FFC	D5
⑭	WR5b	MAIN	CN1	⇔	DRUM	–	8	FPC	D5
⑮	WR6	MAIN	CN3603	⇔	CASSETTE HOUSING	–	4	WIRE	D6a
⑯	WR7a	MAIN	CN3002	⇔	LOADING MOTOR	–	2	PARA RIBON WIRE	D7
⑰	WR7b	A/C HEAD	CN1	⇔	MAIN	CN2001	7	PARA RIBON WIRE	D7
⑱	WR7c	FE HEAD	–	⇔	MAIN	CN2002	2	PARA RIBON WIRE	D7
–	–	CAPSTAN MOTOR	–	⇔	MAIN	CN3003	8	BOARD TO BOARD	D7
–	–	ROTARY ENCODER	–	⇔	MAIN	CN3004	5	BOARD TO BOARD	D7
⑲	WR8a	JACK	CN7101	⇔	MAIN	CN7504	8	FFC	D8
⑳	WR8b	DISPLAY	CN7001	⇔	MAIN	CN3011	22	FFC	D8
㉑	WR8c	MAIN	CN3602	⇔	DIGITAL	CN9001	9	WIRE	D8
㉒	WR8d	MAIN	CN3605	⇔	DIGITAL	CN9003	7	WIRE	D8
㉓	WR8e	MAIN	CN3606	⇔	DIGITAL	CN9002	4	WIRE	D8
㉔	WR8f	MAIN	CN2601	⇔	DIGITAL	CN9801	9	WIRE	D8
㉕	WR8g	3D SVHS	CN1006	⇔	DIGITAL	CN8601	6	WIRE	D8
–	–	DISPLAY	CN7003	⇔	JACK	CN7103	4	BOARD TO BOARD	D9
–	–	DISPLAY	FW7001	⇔	REC SAFETY	FW7011	2	PARA RIBON WIRE	D9
–	–	DISPLAY	FW7001	⇔	CASS.SW	FW7012	3	PARA RIBON WIRE	D9

Table 1-8-1

SECTION 2
MECHANISM ADJUSTMENT

2.1 PREPARATION

2.1.1 Precautions

(1) Disconnect VCR from AC power before soldering.
(2) Avoid imparting stress to wires when disengaging connectors.
(3) Determine and correct the cause of difficulty before proceeding to adjustments.Do not disturb settings unnecessarily.
(4) Use care not to damage tabs,claws,etc during repairs.
(5) Install the cassette housing assembly only when the mechanism is in the MECHANISM ASSEMBLING MODE position.
(6) When reattaching the front panel assembly, make sure that the door opener of the cassette housing assembly is lowered in position prior to the reinstallation. (See SECTION 1 DISASSEMBLY.)

2.1.2 Check without cassette housing assembly

Mechanism operations can be observed easily by removing the cassette housing assembly. Use the MECHANISM SERVICE MODE (See SECTION 1 DISASSEMBLY).

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button,take out of the cassette tape according to the following procedure.

(1) Disconnect the power cord from AC outlet then take out the Top cover and Front panel assembly.
(2) Turn the loading motor on the Main deck assembly by hand in the unloading direction to where the pole base assembly (supply and take up) is positioned below the cassette tape.At that time, pay careful attention to the tape not to get soiled with grease.
(3) Take out 4 screws of the cassette housing assembly.(See SECTION 1 DISASSEMBLY)
(4) Remove the cassette housing with slackened tape and guard panel of cassette.
(5) Wind up the tape by turning the reel hub(either supply or take up side for convenience) from the bottom of the cassette,and remove the cassette tape.

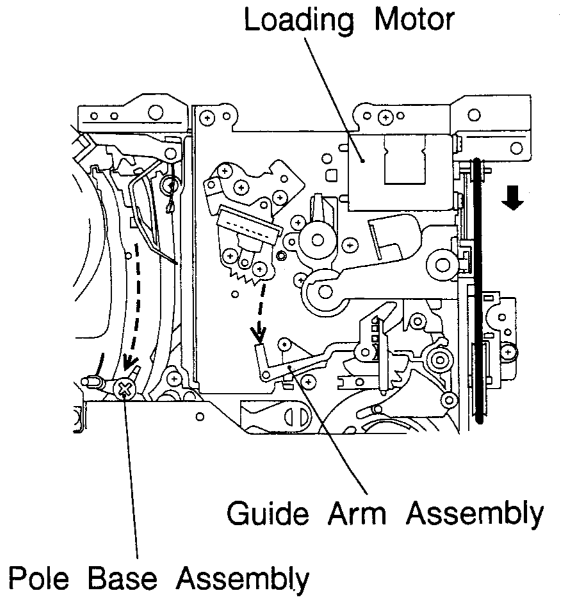


Fig. 2-1-1

2.1.4 Test Equipment

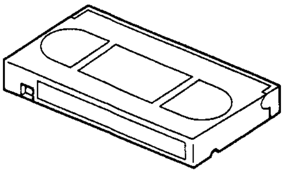
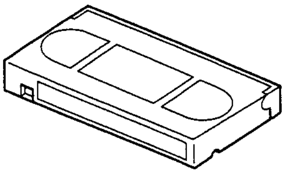
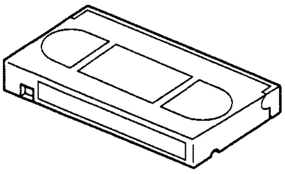
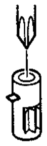
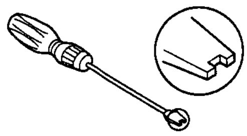
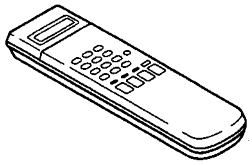
Alignment tape [SP, stairstep(PAL)] 4822 397 30262	Alignment tape [LP, stairstep(PAL)] 4822 397 30261	Back tension cassette gauge 4822 395 90615	A/C head positioning tool 4822 395 90916
			
Roller driver 4822 395 90904	Jig RCU 4822 219 10208		
			

Table 2-1-1 Test equipment

2.2 MAIN MECHANISM PARTS

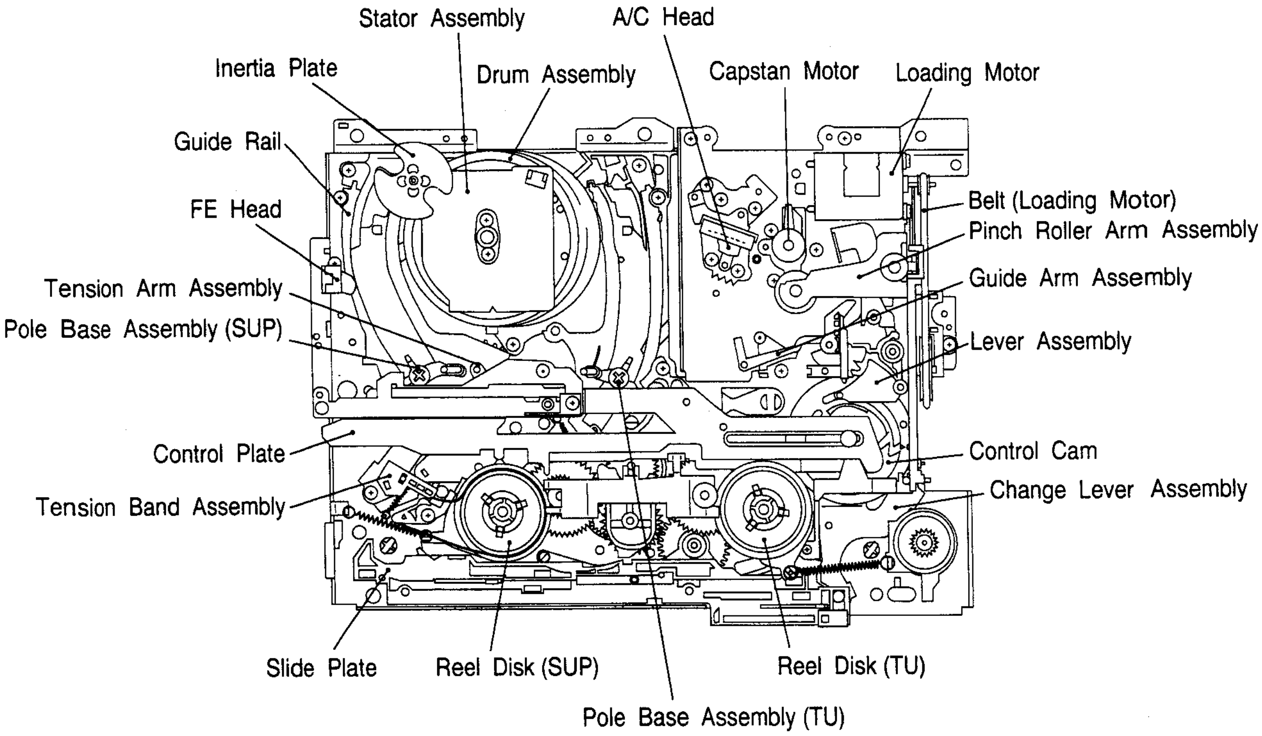

Stator Assembly
A/C Head
Inertia Plate
Drum Assembly
Capstan Motor
Loading Motor
Guide Rail
FE Head
Belt (Loading Motor)
Pinch Roller Arm Assembly
Tension Arm Assembly
Guide Arm Assembly
Pole Base Assembly (SUP)
Lever Assembly
Control Plate
Control Cam
Change Lever Assembly
Tension Band Assembly
Slide Plate
Reel Disk (SUP)
Reel Disk (TU)
Pole Base Assembly (TU)

Fig. 2-2-1 Top view of main deck

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable,but usually not feasible in practice.Therefore,perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads,tape guides and brush can detract from playback picture quality and in extreme cases,even damage the tape.For cleaning,use a finemesh cotton cloth(about the texture of a white dress-shirt) moistened in alcohol. It is recomended to also clean the tape tension posts and capstan.

- To clean the video heads,press the moistened cloth gently against the upper drum with fingertip and turn the drum by hand.
- Do not use a vertical stroke,as this may damage the heads.

2.2.2 Lubrication

With no need for periodical lubrication, you have only to lubricate new parts after replacement. If any oil or grease on contact parts is soiled, wipe it off and newly lubricate the parts.

(1) See the mechanism assembly and disassembly diagrams (M4) for the lubricating or greasing spots.
(2) Grease is not required for a replacement cassette housing assembly,as this has been applied at the factory.

NOTE : *Stir grease that has been stored for an extended period.*

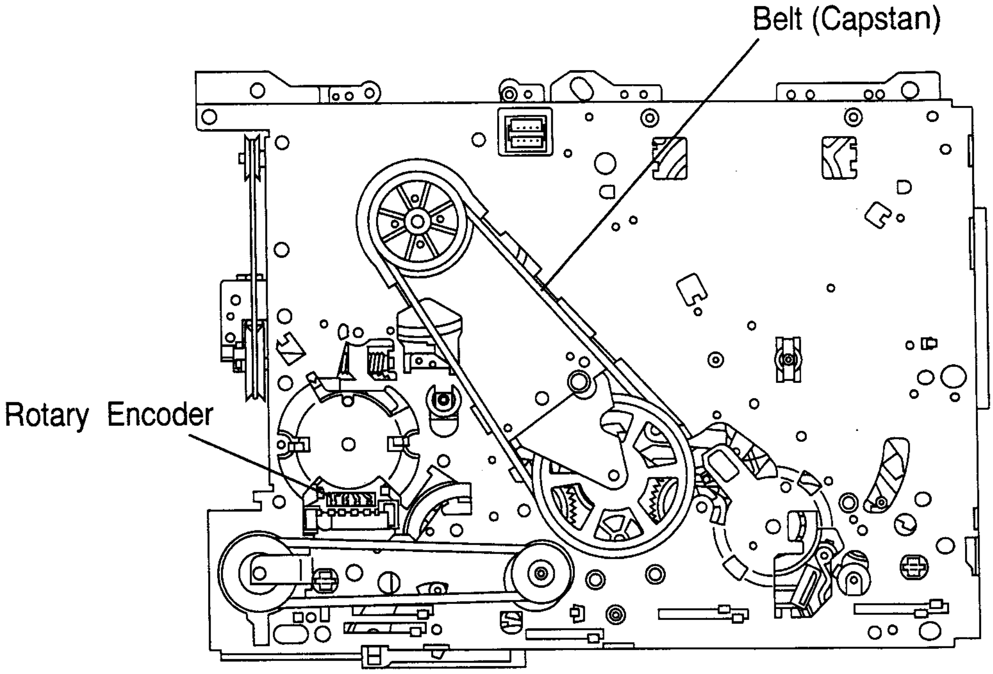


Fig. 2-2-2 Bottom view of main deck

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage.Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance. Worn parts must also be replaced as and when required.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning,lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions.However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time,even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Drum sub assembly	★○	○
	A/C head	★○	★○
	Lower drum motor assembly	★	★○
	Pinch roller arm assembly	★	★
	Full erase head	★	★
	Tension arm assembly	★	★
	Guide arm assembly	★	★
Drive	Capstan motor		○
	Belt (Capstan)	○	○
	Belt (Loading motor)		○
	Loading motor		○
	Slit disk (supply, take up)		○
	Clutch unit (supply, take up)		○
	Worm gear assembly		○
	Control plate		○
	Slide plate		○
Other	Brush	★○	★○
	Tension band assembly	○	○
	Rotary encoder		○

★ : Cleaning
○ : Inspection or Replacement if necessary

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation.The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts and cassette housing assembly have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

(1) Turn the loading motor belt by hand.
(2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

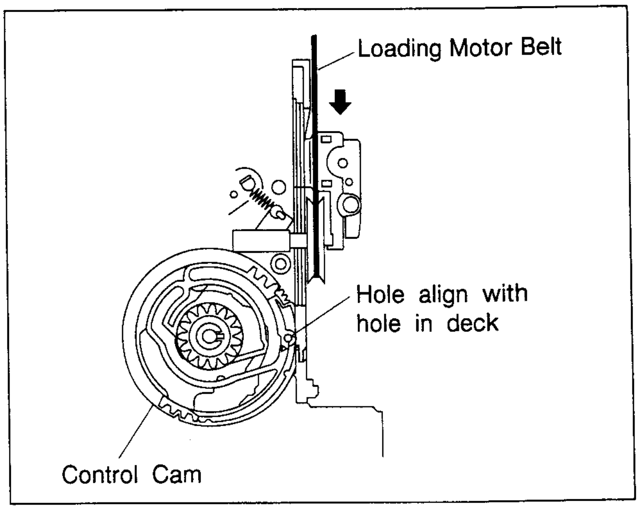


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm Assembly

(1) Remove the slit washer.
(2) Lift the pinch roller arm assembly, and pull out it while pushing the pinch plate toward outside.

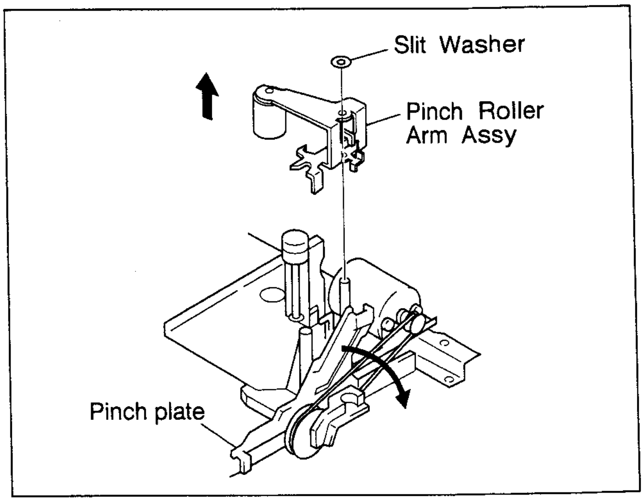


Fig.2-5-1

2.5.2 A/C Head

1. Removal

(1) Take out 2 screws (A).

(2) Remove the A/C head with head base.

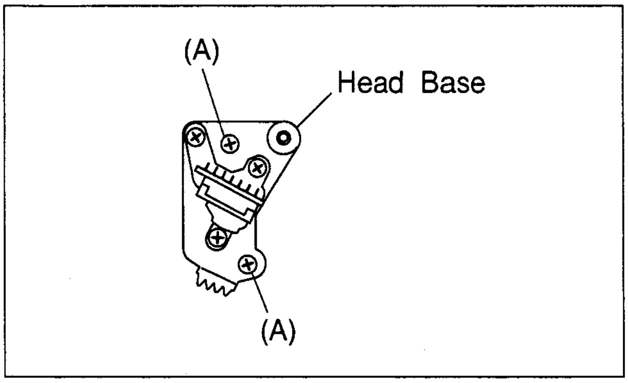

(A)
Head Base
(A)

Fig.2-5-2

(3) When replacing the A/C head only,remove 3 screws (B), use care not to misplace the 3 springs.

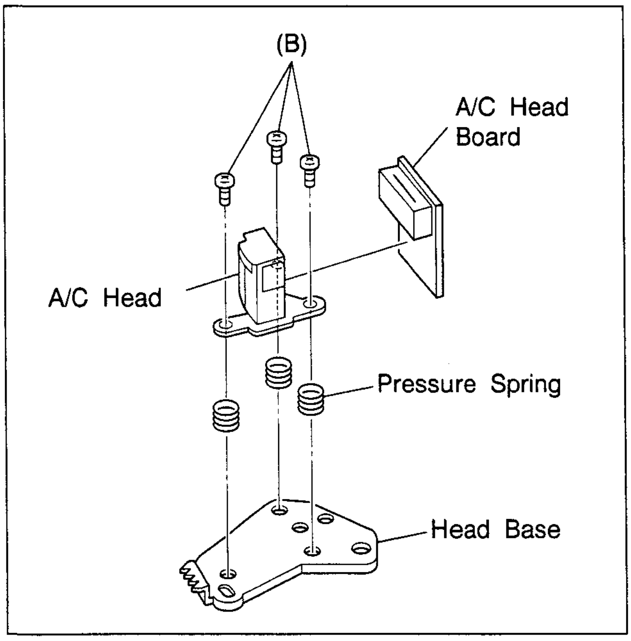

(B)
A/C Head Board
A/C Head
Pressure Spring
Head Base

Fig.2-5-3

2. Installation

(1) Temporarily set A/C head height as indicated in Fig. 2-5-4.

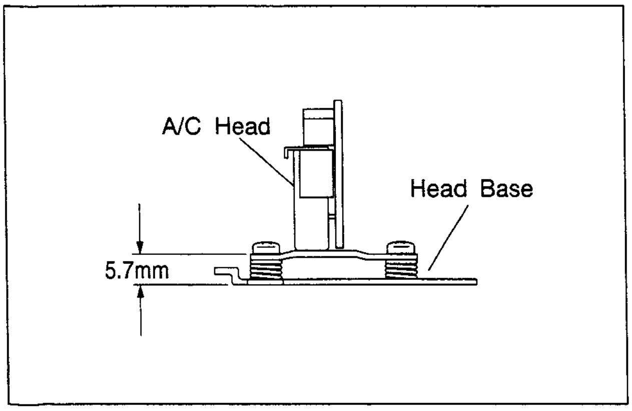

A/C Head
Head Base
5.7mm

Fig.2-5-4

NOTES:

- *It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.*
- *Perform interchangeability adjustments after electrical adjustments.*

2.5.3 Pinch Plate

1. Removal

(1) Disengage 2 claws, then remove the pinch plate.

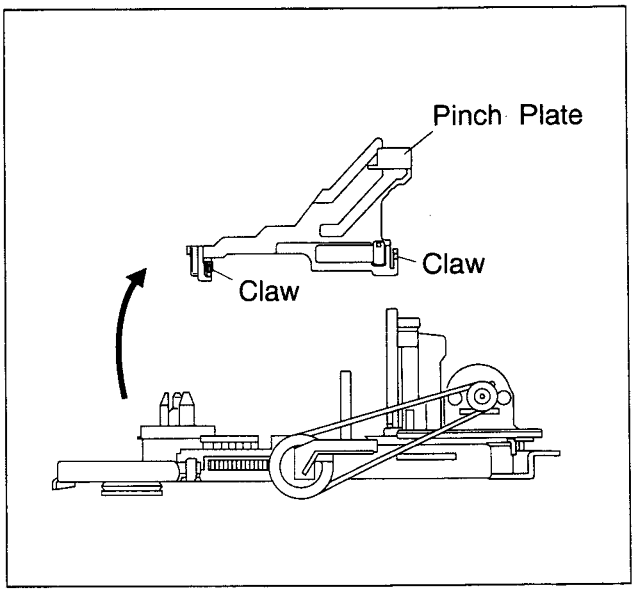

Pinch Plate
Claw
Claw

Fig.2-5-5

2. Installation

(1) When installing pinch plate,align rack of pinch plate and triangle mark of control cam as indicated in Fig.2-5-6.

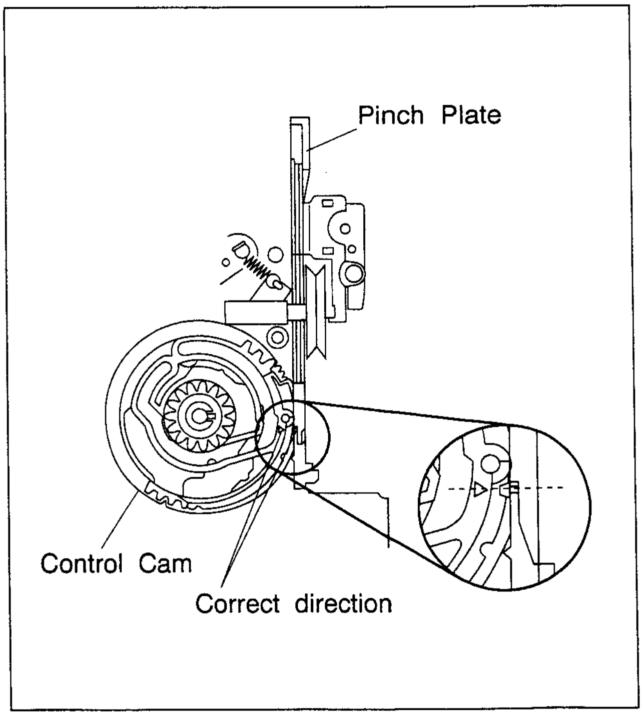

Pinch Plate
Control Cam
Correct direction

Fig. 2-5-6

2.5.4 Loading Motor

(1) Remove the belt from the worm gear assembly.

(2) Take out the 2 screws (A) and then remove the loading motor.

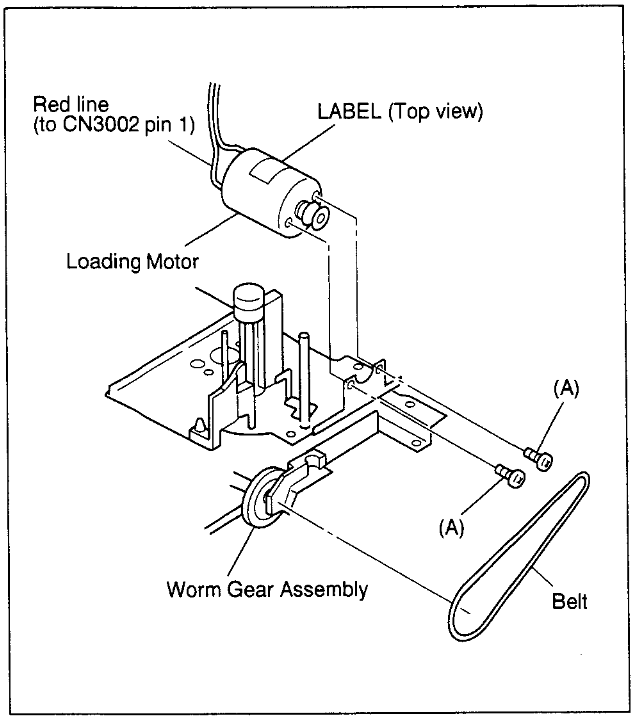

Red line
(to CN3002 pin 1)
LABEL (Top view)
Loading Motor
(A)
(A)
Worm Gear Assembly
Belt

Fig.2-5-7

NOTE: *When removing the loading motor, hold it so that the label faces upward. Also take care with the wire colors.*

2.5.5 Lever Assembly, Sub-Deck Assembly, Capstan Motor

(1) First remove the belt from the rear side (capstans) of the main deck assembly.

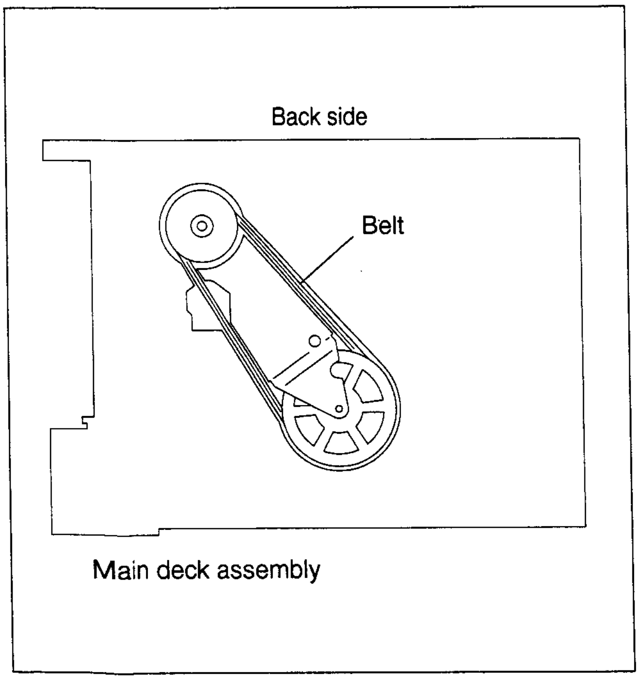

Back side
Belt
Main deck assembly

Fig.2-5-8

(2) Take out the slit washer, then remove the lever assembly.

(3) Take out the 3 screws (A), then remove the capstan motor and sub-deck assembly together.

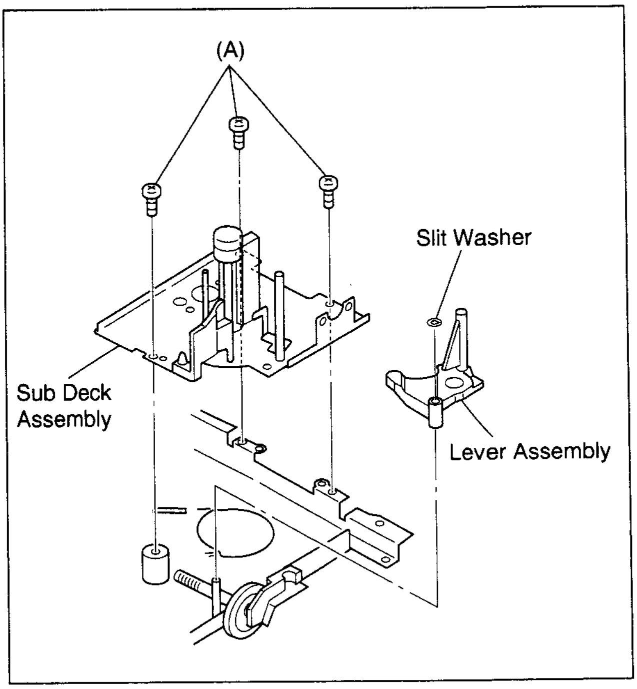

(A)
Slit Washer
Sub Deck
Assembly
Lever Assembly

Fig.2-5-9

(4) Take out the 3 screws (B), then remove the capstan motor from the sub-deck assembly.

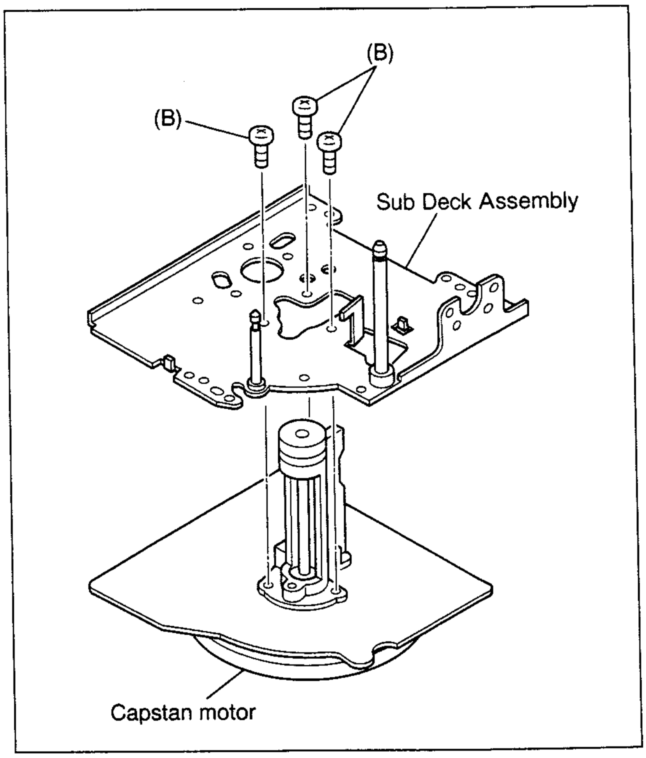

(B)
(B)
Sub Deck Assembly
Capstan motor

Fig.2-5-10

NOTE: *Before removing the capstan brake assembly, it is required to first remove the worm gear assembly and the control cam.*

2.5.6 Control Bracket

(1) Take out 1 screw (A) and 1 screw (B).

(2) Remove the control bracket.

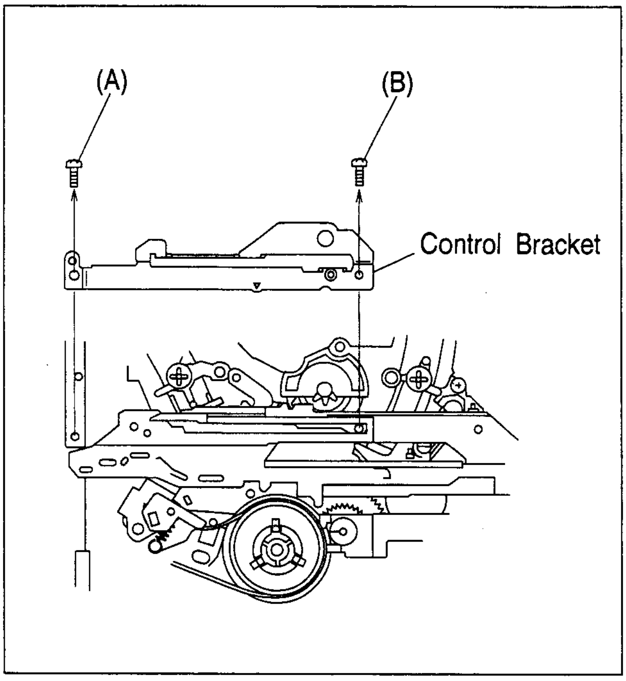

(A)
(B)
Control Bracket

Fig.2-5-11

2.5.7 Reel Disk (Take up)

(1) Take out 1 slit washer.

(2) Remove the reel disk (take up).

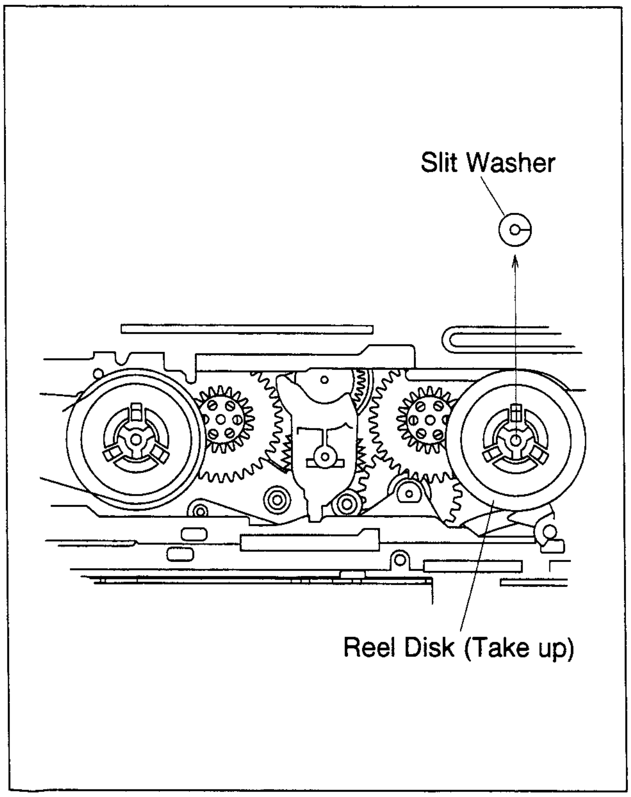

Slit Washer
Reel Disk (Take up)

Fig.2-5-12

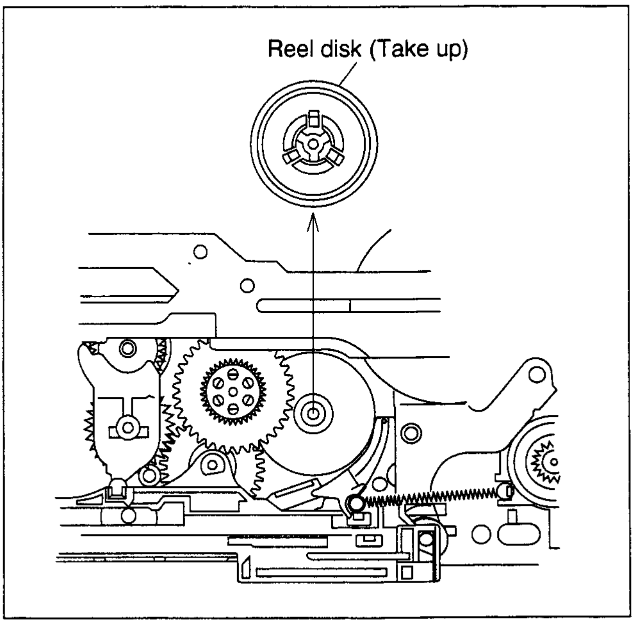

Reel disk (Take up)

Fig.2-5-13

2.5.8 Control Plate

(1) Take out the slit washer, disengage the 2 hooks while lifting the control cam side of the control plate, and remove the control plate.

NOTE 1 : *After removing the control plate, be careful not to turn the main deck assembly upside down. Otherwise, parts such as the idler lever and clutch unit (take up) may slip out.*

NOTE 2 : *After removing the control plate, the parts shown in the following figure can be removed. The encircled numbers indicate the removal sequence.*

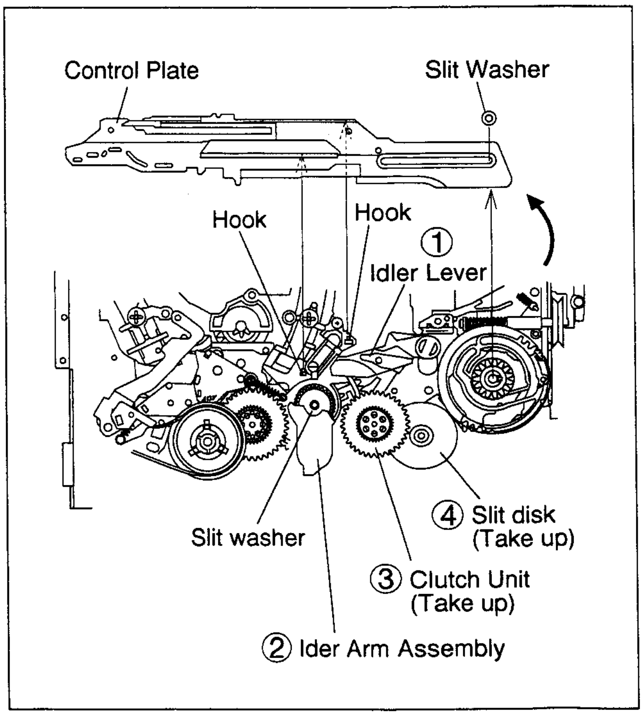

Control Plate
Slit Washer
Hook
Hook
① Idler Lever
Slit washer
④ Slit disk (Take up)
③ Clutch Unit (Take up)
② Ider Arm Assembly

Fig.2-5-14

2.5.9 Sub-Brake Assembly (Take up), Control Cam

(1) Disengage the spring of the sub-brake assembly (take up) and, while pushing the hook in the direction of the arrow, remove the sub-brake assembly (take up) upward.

(2) While pushing the claw in the disengaging direction, remove the control cam.

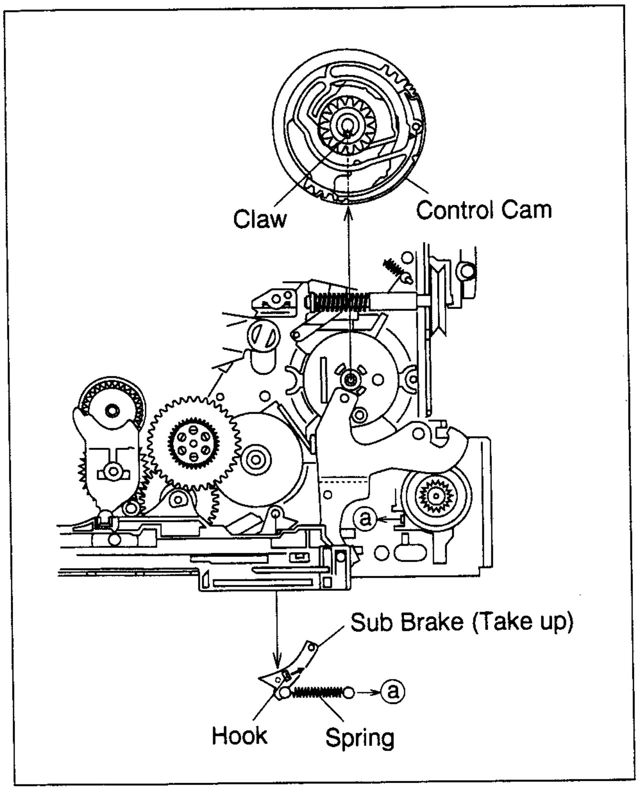

Claw
Control Cam
a
Sub Brake (Take up)
a
Hook
Spring

Fig.2-5-15

2.5.10 Slide Plate

(1) Disengage the 7 claws on the back side of the main deck assembly by following the order from the claw on one end to that on the opposite end, then remove the slide plate.

NOTE: *After removing the slide plate, it is possible to remove the main brake assembly (take up) and the change arm assembly.*

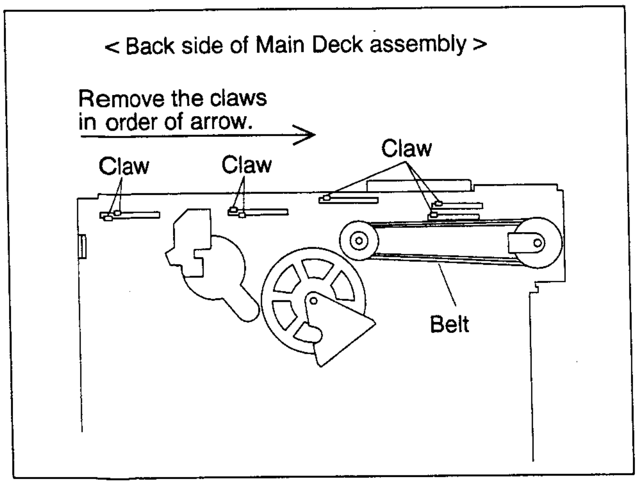

< Back side of Main Deck assembly >
Remove the claws in order of arrow.
Claw
Claw
Claw
Belt

Fig. 2-5-16

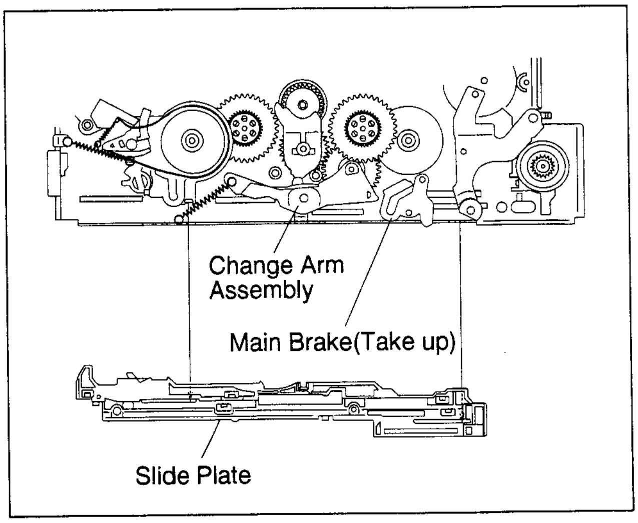

Change Arm Assembly
Main Brake(Take up)
Slide Plate

Fig. 2-5-17

2.5.11 Change Lever Assembly, Rotary Encoder

(1) Slide the change lever assembly in the direction of the arrow and remove.

(2) While pushing the claws on both sides in the disengaging directions, take out the rotary encoder.

(3) When attaching the rotary encoder, position it so that the alignment markings face each other as shown in Fig. 2-5-18, then attach the rotary encoder.

NOTE 1: *Before removing the change lever assembly, it is required to remove the belt (Fig. 2-5-16).*

NOTE 2: *Take care of the cassette gear, which is disengaged at the same time as the change lever assembly is removed.*

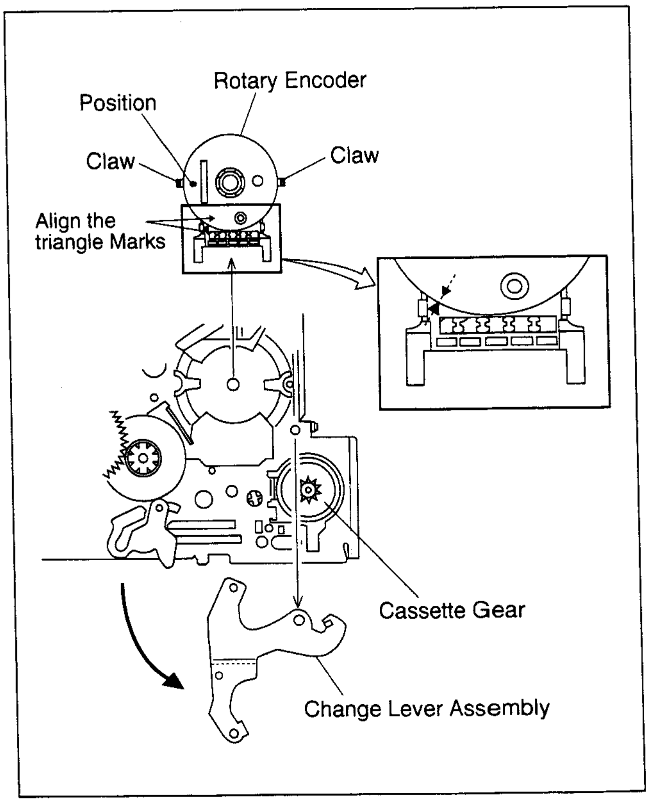

Rotary Encoder
Position
Claw
Claw
Align the triangle Marks
Cassette Gear
Change Lever Assembly

Fig. 2-5-18

2.5.12 Tension Arm Assembly, Tension Band Assembly, Reel Base Assembly (Supply), Sub-Brake Assembly (Supply), Clutch Unit (Supply), Take up Lever

(1) Disengage spring ⓐ of the sub-brake assembly (supply) from the hook.
(2) Disengage spring ⓒ from the hook.
(3) Take out the slit washer, and remove the tension arm assembly. Also remove the tension band assembly by disengaging the claw.
(4) Take out the slit washer, and remove the reel base assembly (supply).
(5) While pushing the claw in the disengaging direction, remove the sub-brake assembly (supply).
(6) Remove the clutch unit (supply).
(7) Remove the take up lever assembly.

NOTE 1: *When attaching the tension arm assembly, be sure to adjust the phase of the tension arm lever.*

NOTE 2: *After removing the clutch unit (supply), it is possible to remove the slit base (supply) and the main brake assembly (supply).*

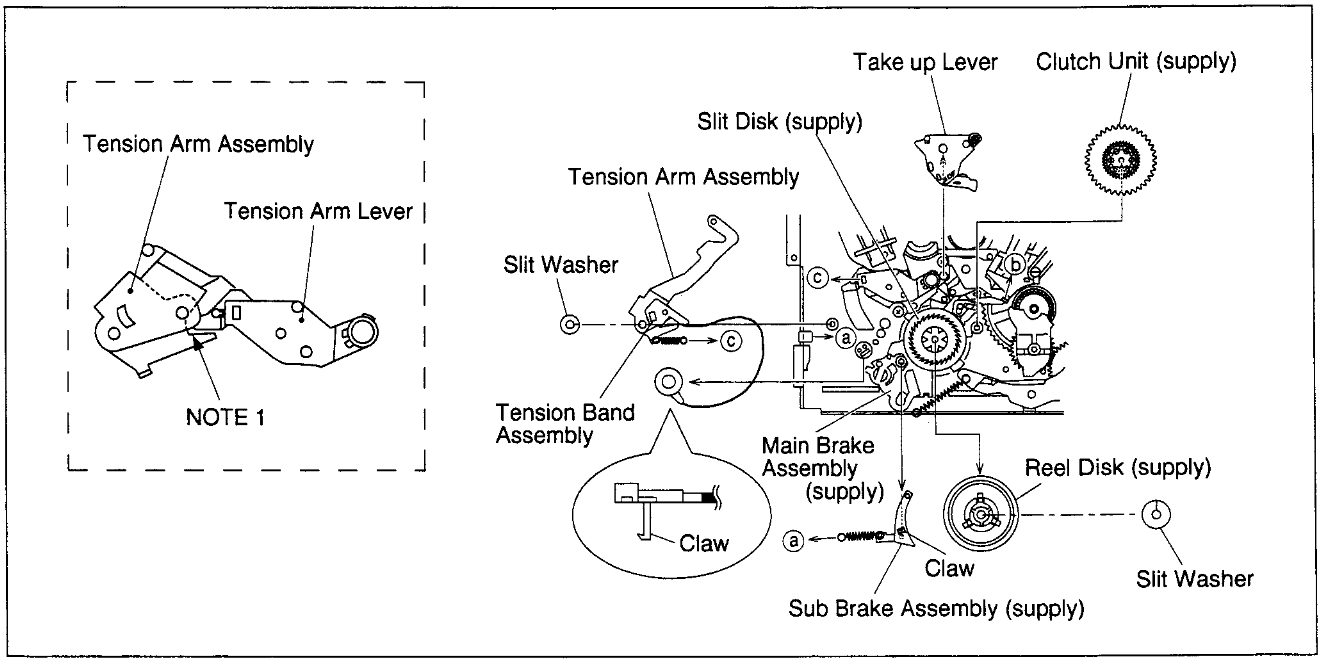

Tension Arm Assembly
Tension Arm Lever
NOTE 1
Take up Lever
Clutch Unit (supply)
Slit Disk (supply)
Tension Arm Assembly
Slit Washer
ⓒ
ⓐ
ⓑ
ⓒ
Tension Band Assembly
Claw
Main Brake Assembly (supply)
Reel Disk (supply)
ⓐ
Claw
Slit Washer
Sub Brake Assembly (supply)

Fig. 2-5-19

2.5.13 Take up Head, Tension Arm Lever

(1) Remove the take up head and tension arm lever.

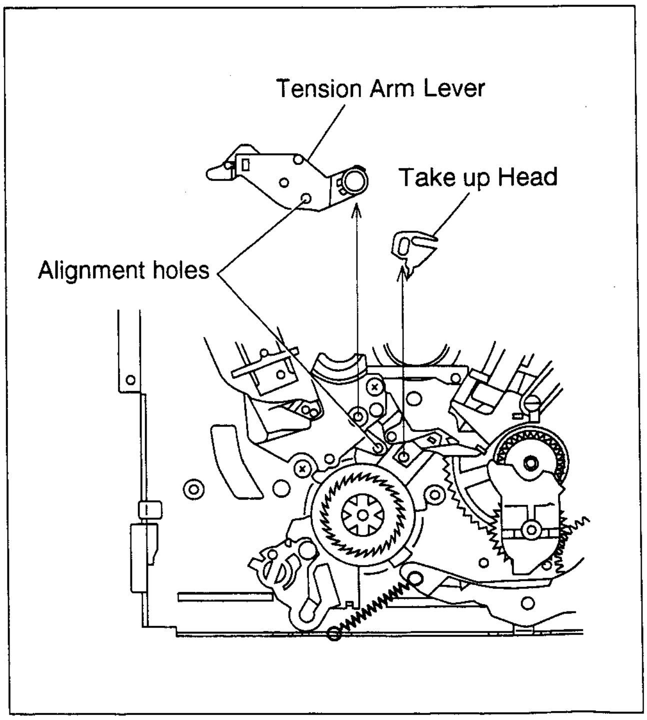

Tension Arm Lever
Take up Head
Alignment holes

Fig.2-5-20

2.5.14 Guide Rail

(1) Take out 5 screws (A) and 1 screw (B).

(2) By expanding the rails on the outer sides of the guide rail, remove the 2 pole base assemblies (supply, take up).

(3) Disengage the 4 claws and remove the guide rail.

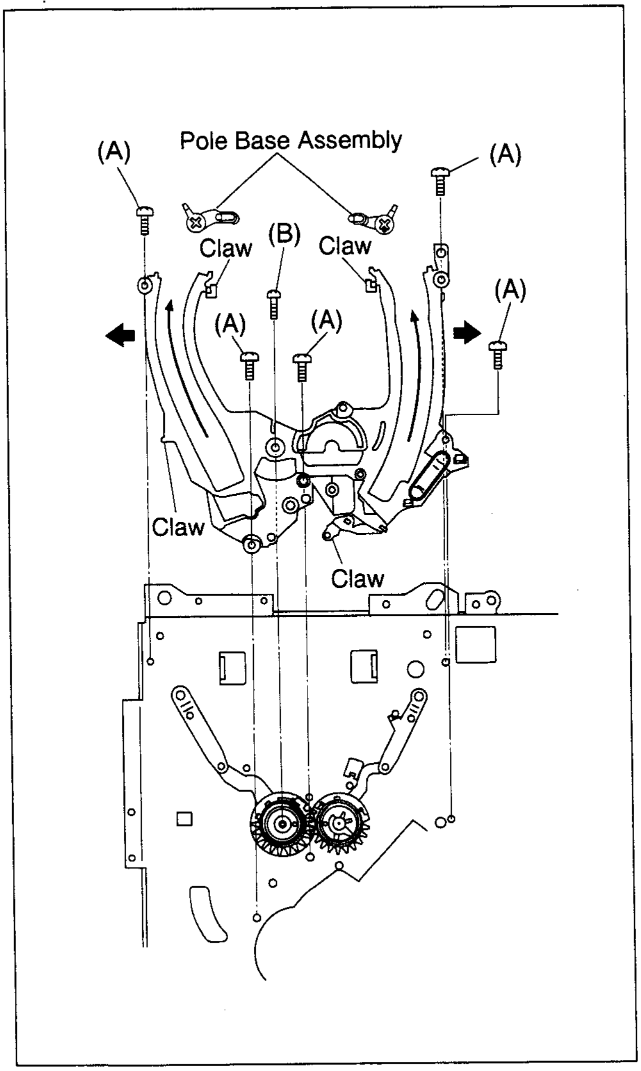

(A)
Pole Base Assembly
(A)
Claw
(B)
Claw
(A)
(A)
(A)
Claw
Claw

Fig. 2-5-21

2.5.15 Stator Assembly

(1) Unplug the flat cable.

(2) Take out the 2 screws (A).

(3) Remove the stator assembly by lifting it in the direction of the arrow (straight upward).

NOTE 1: *Be careful not to lose the brush and spring.*

NOTE 2: *After attaching, always perform "3.2.1 PB SWITCHING POINT ADJUSTMENT" in "ELECTRICAL ADJUSTMENTS".*

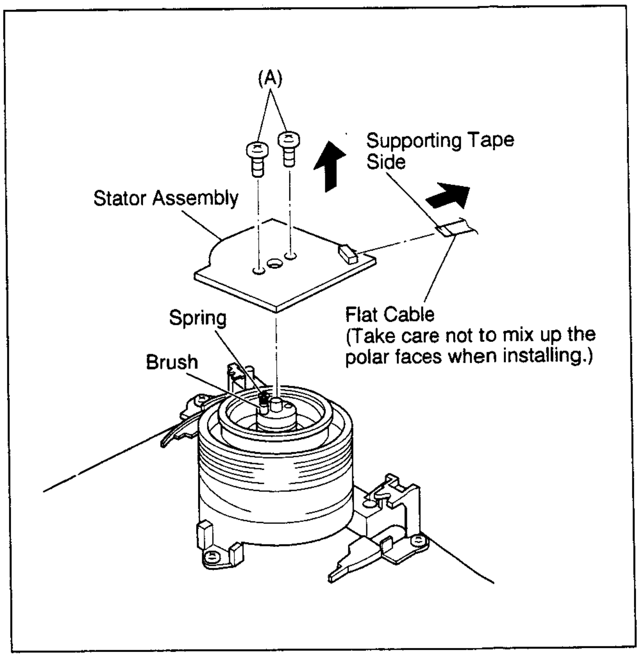

(A)
Supporting Tape Side
Stator Assembly
Spring
Brush
Flat Cable
(Take care not to mix up the polar faces when installing.)

Fig. 2-5-22

2.5.16 Rotor Assembly

(1) Remove the stator assembly.

(2) Take out the 2 screws (B) and then remove the rotor assembly.

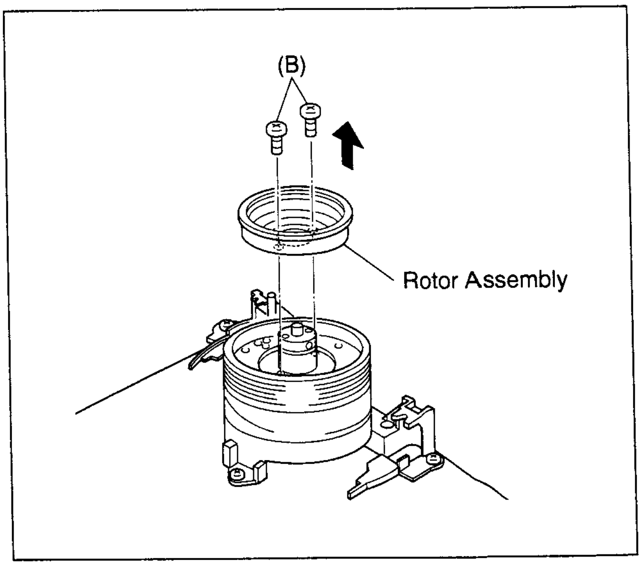

(B)
Rotor Assembly

Fig.2-5-23

NOTE : *When attaching the rotor assembly, make sure that the phases are matched correctly. Otherwise, normal image cannot be displayed. (Fig. 2-5-24)*

(3) Set the phases of the upper drum assembly and rotor assembly as shown in Fig. 2-5-23.

(4) Align hole (a) of the upper drum assembly and hole (b) of the rotor assembly, then tighten the 2 screws (B).

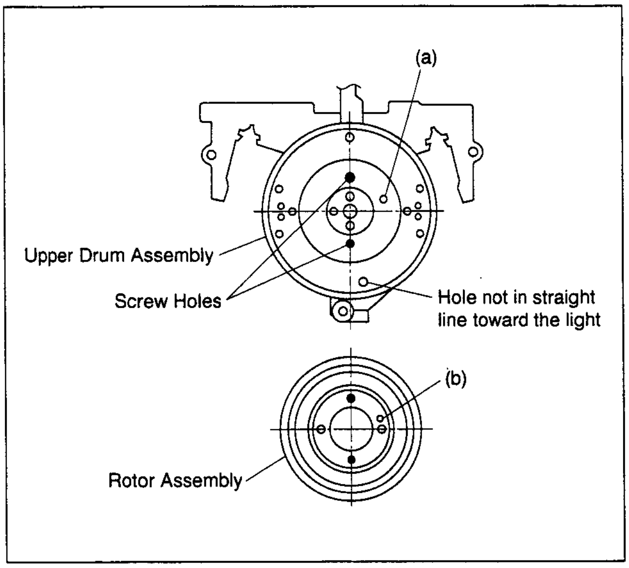

(a)
Upper Drum Assembly
Screw Holes
Hole not in straight line toward the light
(b)
Rotor Assembly

Fig. 2-5-24

2.6 INSTALLATION OF MAIN PARTS (Mechanism Phase Alignment)

2.6.1 Before Assembly

The mechanism of this model is closely related with the rotary encoder and the system control circuitry. The connection between the rotary encoder and control cam determines the movement of all mechanical parts including the slide plate, loading arm assembly, control plate and brake. If these parts are not installed in the correct positions, operations such as loading and unloading will not be possible.

Installation of the main parts (mechanism phase alignment) should be performed exclusively in the mechanism operation mode, as with the operations in the previous sections.

2.6.2 Loading Arm Assemblies (Supply, Take up)

(1) Attach the loading arm assembly (supply) and loading arm assembly (take up) so that the alignment markings on their gears face each other and the holes on their arms are respectively aligned with the holes on the main deck.

(2) Attach the guide rail, attach the pole base assemblies onto the extremities of the arms, then perform the unloading operation so that the pole base assemblies come to the most forward positions.

NOTE: ***When attaching the pole base assemblies (supply/take up), temporarily tighten the 3 screws other than the 2 screws on the sides of the guide rail extremities so that the parts do not slip out.***

(3) Attach the surrounding parts of the guide rail.

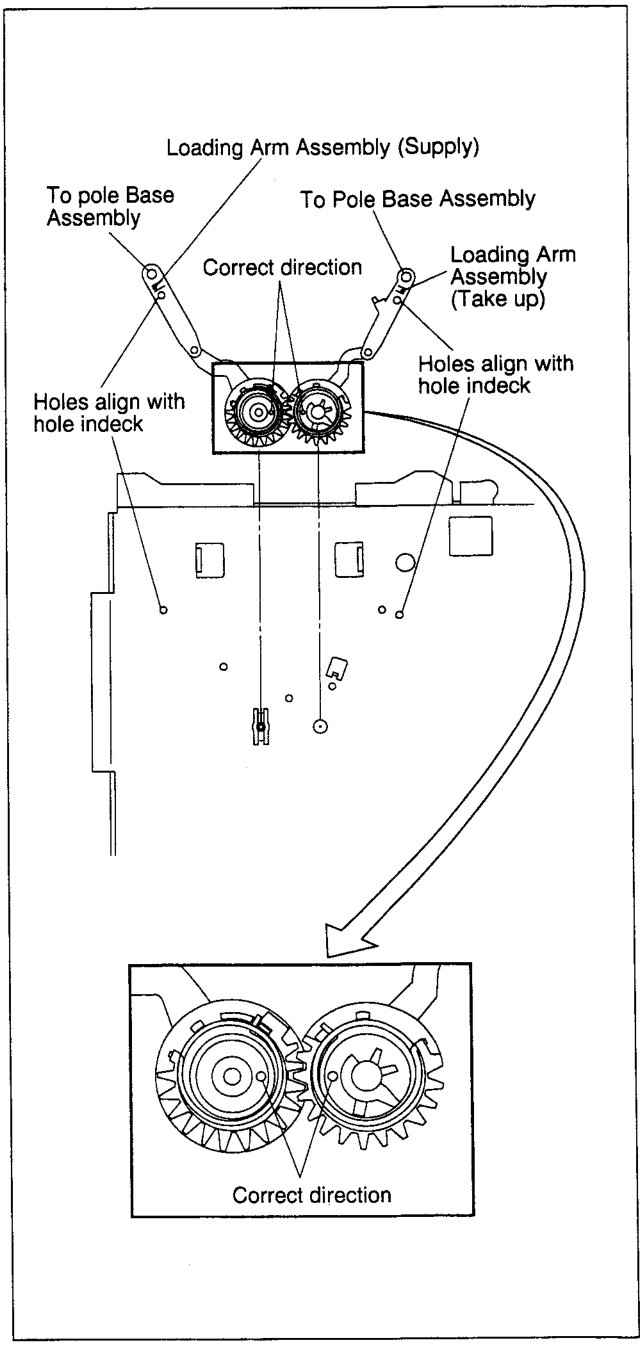

Loading Arm Assembly (Supply)
To pole Base Assembly
To Pole Base Assembly
Correct direction
Loading Arm Assembly (Take up)
Holes align with hole indeck
Holes align with hole indeck
Correct direction

Fig. 2-6-1

2.6.3 Rotary Encoder, Change Lever Assembly, Control Cam

(1) To attach the rotary encoder, align the triangular alignment markings and push the rotary encoder in until the claws are locked.

(2) To attach the change lever assembly, align its holes with the holes on the main deck assembly. As the change lever assembly is projected on the rear side of the main deck assembly, take care that the assemblies are not separated from each other.

(3) To attach the control cam, align its holes with the holes on the main deck assembly by pushing the capstan brake assembly downward.

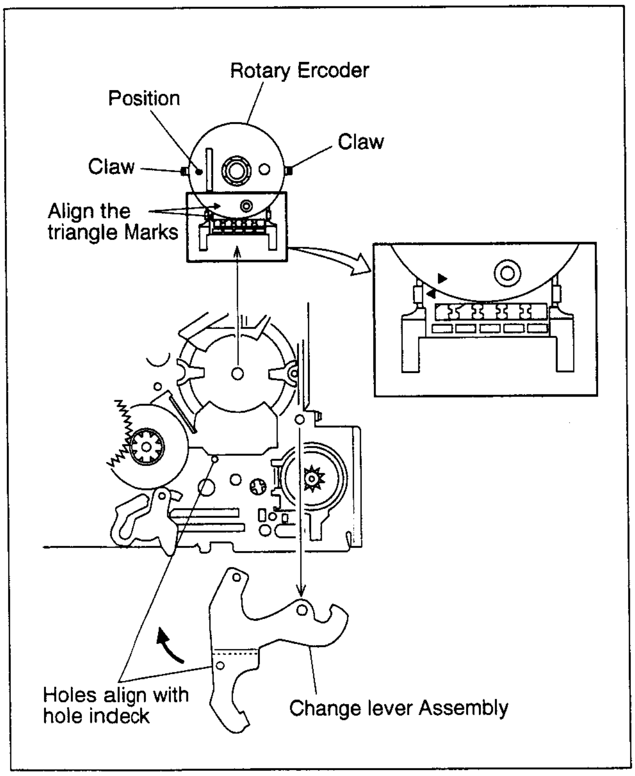

Rotary Ercoder
Position
Claw
Claw
Align the triangle Marks
Holes align with hole indeck
Change lever Assembly

Fig. 2-6-2

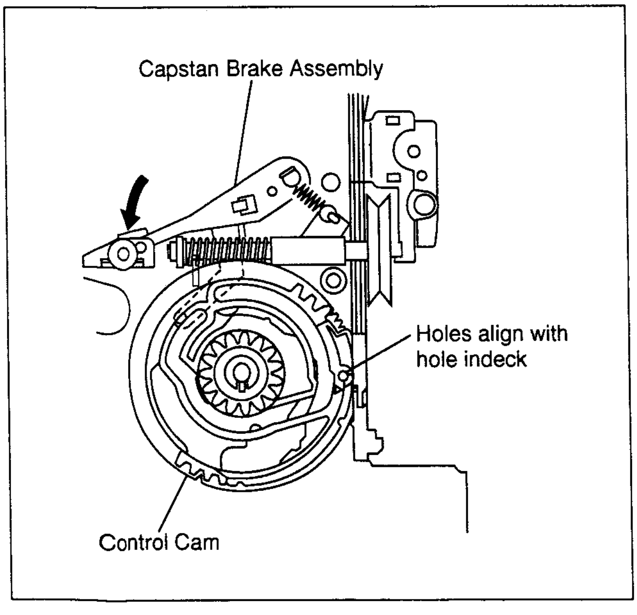

Capstan Brake Assembly
Holes align with hole indeck
Control Cam

Fig. 2-6-3

2.6.4 Slide Plate

(1) While pushing down the main brake assemblies (supply, take up) so that they come in contact with the extremity of the main deck assembly, attach the slide plate so that its alignment holes are aligned with the holes of the main deck assembly.

NOTE: *Free the brake of the sub-brake assembly (supply) during installation.*

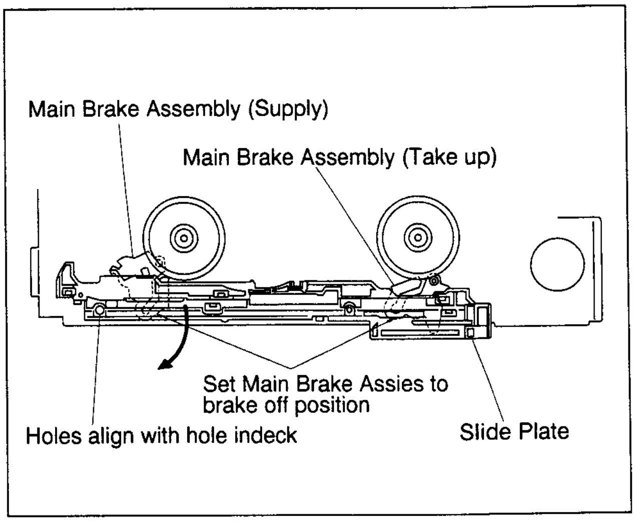

Main Brake Assembly (Supply)
Main Brake Assembly (Take up)
Set Main Brake Assies to brake off position
Holes align with hole indeck
Slide Plate

Fig.2-6-4

2.6.5 Control Plate

(1) Attach the control plate by aligning the 2 alignment holes on the control plate with the alignment holes on the main deck assembly as well as the alignment holes on the take up lever. As the take up lever is pulled by a tension spring, use a pair of tweezers or similar too to align the holes.

(2) After attaching the control plate, lock it with the slit washer and control bracket.

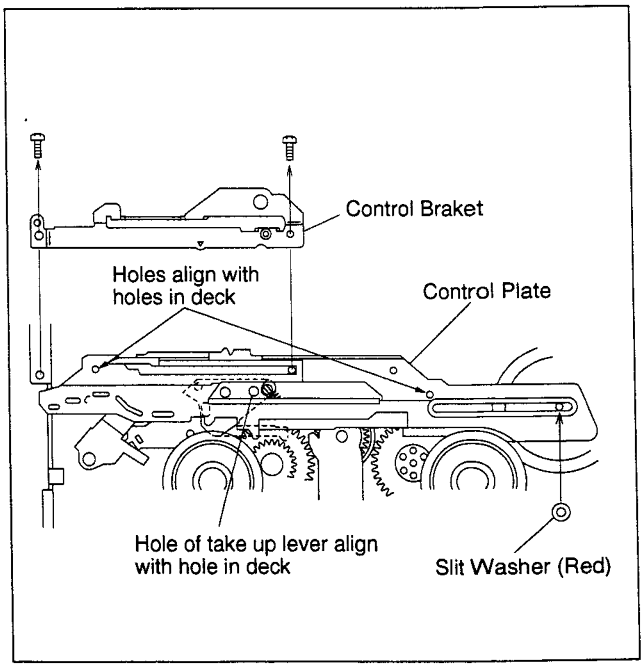

Control Braket
Holes align with holes in deck
Control Plate
Hole of take up lever align with hole in deck
Slit Washer (Red)

Fig. 2-6-5

2.7 MECHANISM TIMING CHART

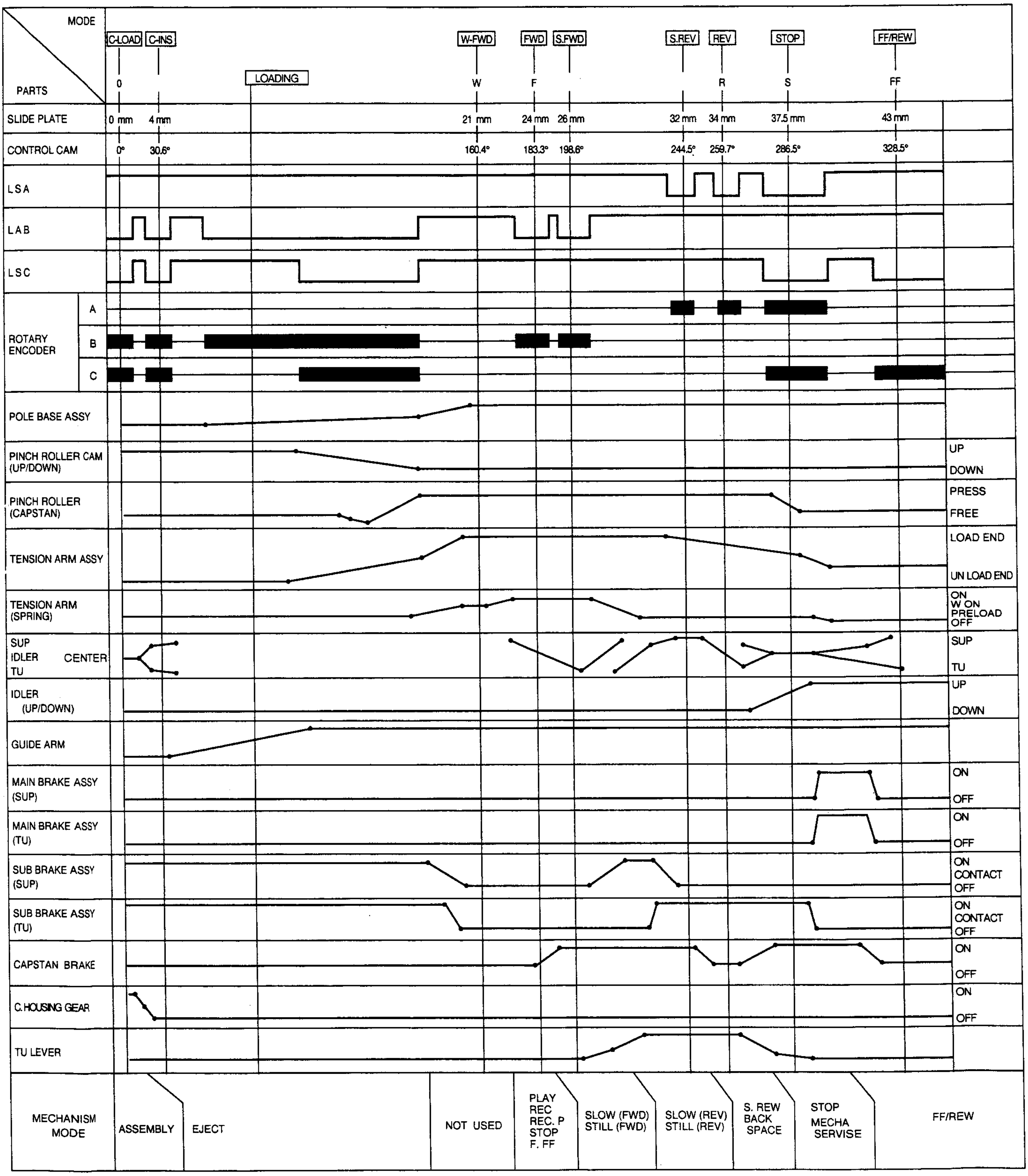

MODE
PARTS
C-LOAD
C-INS
LOADING
W-FWD
FWD
S.FWD
S.REV
REV
STOP
FF/REW
0
W
F
R
S
FF
SLIDE PLATE
0 mm
4 mm
21 mm
24 mm
26 mm
32 mm
34 mm
37.5 mm
43 mm
CONTROL CAM
0°
30.6°
160.4°
183.3°
198.6°
244.5°
259.7°
286.5°
328.5°
LSA
LAB
LSC
ROTARY ENCODER
A
B
C
POLE BASE ASSY
PINCH ROLLER CAM (UP/DOWN)
UP
DOWN
PINCH ROLLER (CAPSTAN)
PRESS
FREE
TENSION ARM ASSY
LOAD END
UN LOAD END
TENSION ARM (SPRING)
ON
W ON
PRELOAD
OFF
SUP IDLER CENTER TU
SUP
TU
IDLER (UP/DOWN)
UP
DOWN
GUIDE ARM
MAIN BRAKE ASSY (SUP)
ON
OFF
MAIN BRAKE ASSY (TU)
ON
OFF
SUB BRAKE ASSY (SUP)
ON
CONTACT
OFF
SUB BRAKE ASSY (TU)
ON
CONTACT
OFF
CAPSTAN BRAKE
ON
OFF
C.HOUSING GEAR
ON
OFF
TU LEVER
MECHANISM MODE
ASSEMBLY
EJECT
NOT USED
PLAY
REC
REC. P
STOP
F. FF
SLOW (FWD)
STILL (FWD)
SLOW (REV)
STILL (REV)
S. REW
BACK
SPACE
STOP
MECHA
SERVISE
FF/REW

Table 2-7-1

2.8 COMPATIBILITY ADJUSTMENT

NOTES:
- *Although compatibility adjustment is very important, it is not necessary to perform this as part of the normal servicing work. It will be required when the audio control head, drum assembly or any part of the tape transport system has been replaced.*
- *To avoid any damage to the alignment tape while performing the compatibility adjustment, get a separate cassette tape ready to be used for checking the initial tape running behavior (for recording and playback).*

2.8.1 Checking/Adjustment of FM Waveform Linearity

Signal (A1) (A2)	• Alignment tape [SP,stairstep(PAL)] • Alignment tape [LP,stairstep(PAL)]
Mode (B)	• PB
Equipment (C)	• Oscilloscope
Measuring point (D)	• TP106 (V.PB FM) [Main board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• Guide roller
Specified value (G)	• Flat V.PB FM waveform

(1) Play back the alignment tape (A1).

(2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).

(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)

(4) Make sure that there is no significant level drop of the V.PB FM waveform caused by the tracking operation, with its generally parallel and linear variation ensured. Perform the following adjustments when required. (See Fig. 2-8-1.)

(5) Reduce the V.PB FM waveform while pressing the channel buttons (+, –) during playback. If a drop in level is found on the left side, turn the guide roller of the pole base assembly (supply side) with the roller driver to make the V.PB FM waveform linear.
If a drop in level is on the right side, likewise turn the guide roller of the pole base assembly (take-up side) with the guide roller to make it linear. (See Fig. 2-8-2.)

(6) Then play back the alignment tape (A2) and make sure that the V.PB FM waveform varies in parallel and linearly with the tracking operation. When required, perform fine-adjustment of the guide roller of the pole base assembly (supply or take-up side).

(7) Unload the cassette tape once, play back the alignment tape (A2) again and confirm the V.PB FM waveform.

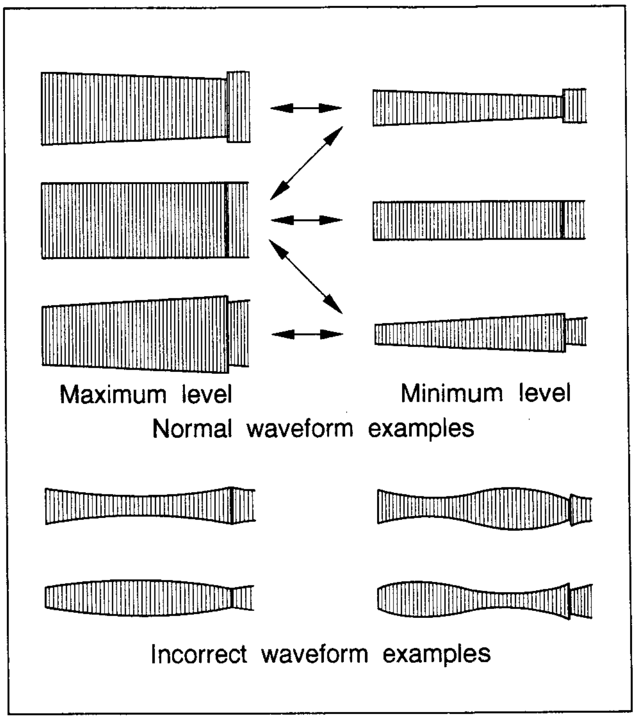


Fig. 2-8-1

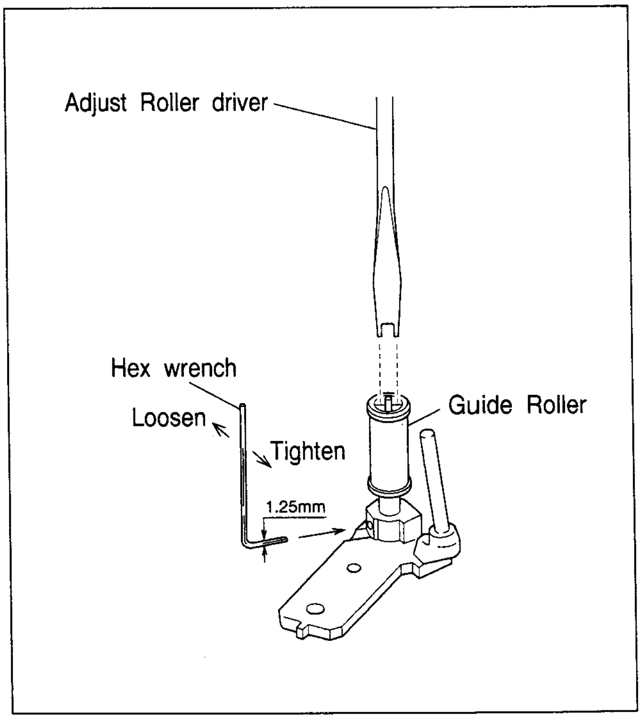


Fig. 2-8-2

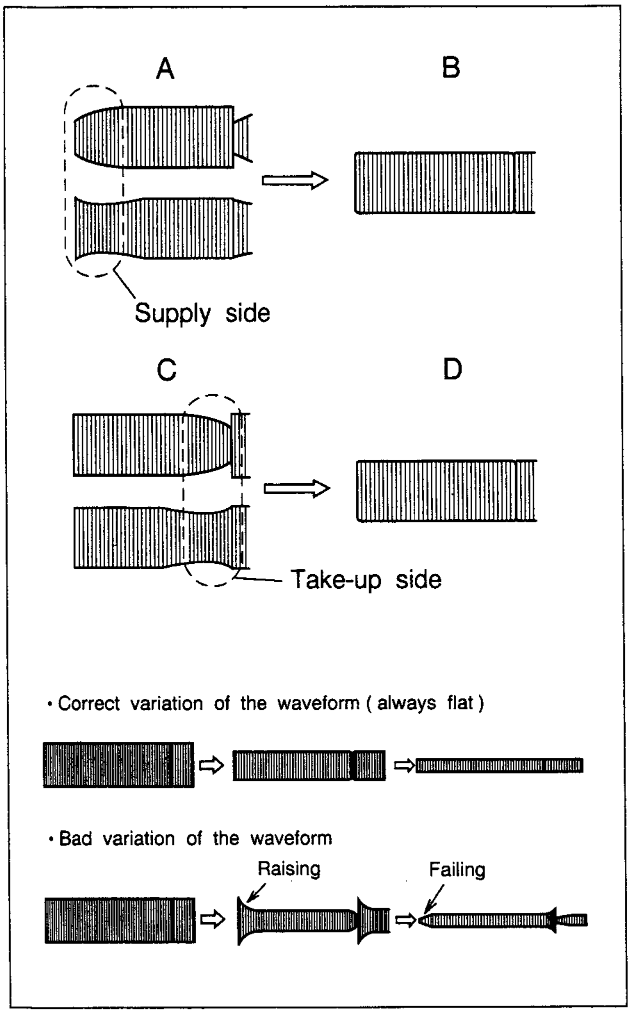

A
B
Supply side
C
D
Take-up side
• Correct variation of the waveform (always flat)
• Bad variation of the waveform
Raising
Failing

Fig. 2-8-3

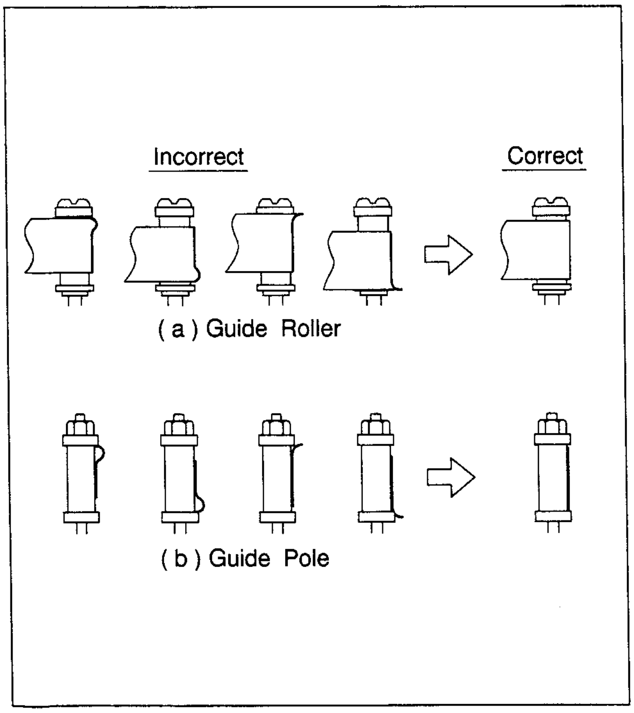

Incorrect
Correct
(a) Guide Roller
(b) Guide Pole

Fig. 2-8-4

2.8.2 Checking/Adjustment of the Height and Tilt of the Audio Control Head

NOTE : • *Set a temporary level of the height of the A/C head in advance to make the adjustment easier after the A/C head has been replaced. (See Fig. 2-5-4.)*

Signal (A)	• Alignment tape [SP,stairstep(PAL)]
Mode (B)	• PB
Equipment (C)	• Oscilloscope
Measuring point (D1) (D2)	• AUDIO OUT terminal • TP4001 (CTL. P) [Main board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• A/C head
Specified value (G)	• Maximum waveform

(1) Play back the alignment tape (A).
(2) Apply the external trigger signal to D.FF (E), to observe the AUDIO OUT waveform and Control pulse waveform at the measuring points (D1) and (D2) in the ALT mode.
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Adjust the AUDIO OUT waveform and Control pulse waveform by turning the screws (1), (2) and (3) little by little until both waveforms reach maximum. The screw (1) and (3) are for adjustment of tilt and the screw (2) for azimuth.

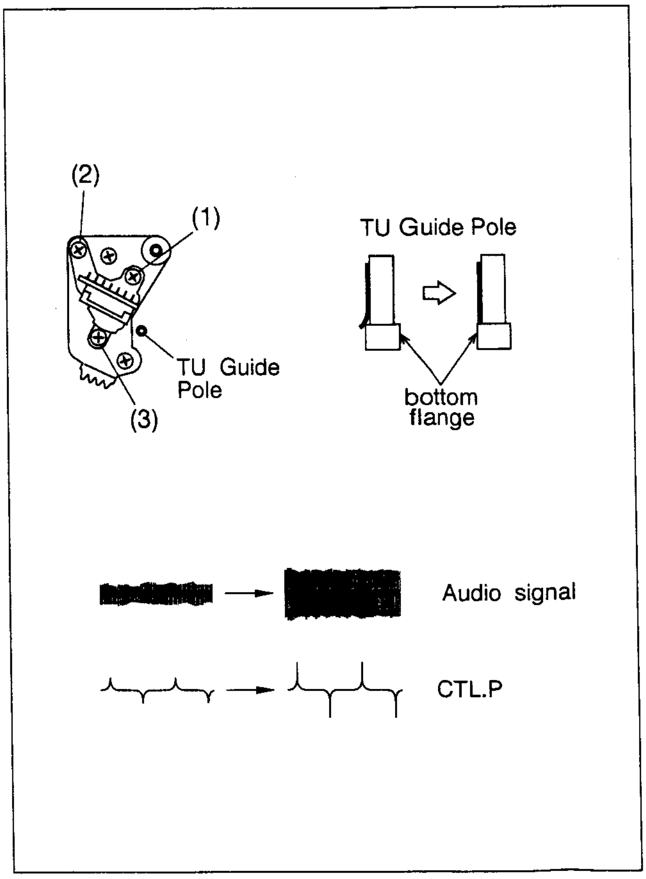

(2)
(1)
(3)
TU Guide Pole
TU Guide Pole
bottom flange
Audio signal
CTL.P

Fig. 2-8-5

2.8.3 Checking/Adjustment of the Audio Control Head Phase (X-Value)

Signal (A1) (A2)	• Alignment tape [SP,stairstep(PAL)] • Alignment tape [LP,stairstep(PAL)]
Mode (B)	• PB
Equipment (C)	• Oscilloscope
Measuring point (D)	• TP106 (V.PB FM) [Main board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• A/C head base
Dpecified value (G)	• Maximum V.PB FM waveform

(1) Play back the alignment tape (A1).
(2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Loosen screws (4) and (5) so that the A/C head position bit is set as indicated in Fig. 2-8-6.
(5) Turn the A/C head position bit fully toward the capstan. Then turn it back gradually toward the drum and stop on the second peak point position of the V.PB FM waveform output level. Then tighten the screw (4) temporarily.
(6) Then play back the alignment tape (A2).
(7) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(8) Perform the tracking operation and make sure that the V.PB FM waveform is at its maximum.
(9) If it is not at maximum, loosen the temporarily tightened screw (4) and turn the A/C head position bit to bring the audio control head to a position around where the waveform reaches its maximum for the first time. Then tighten the screws (4) and (5).

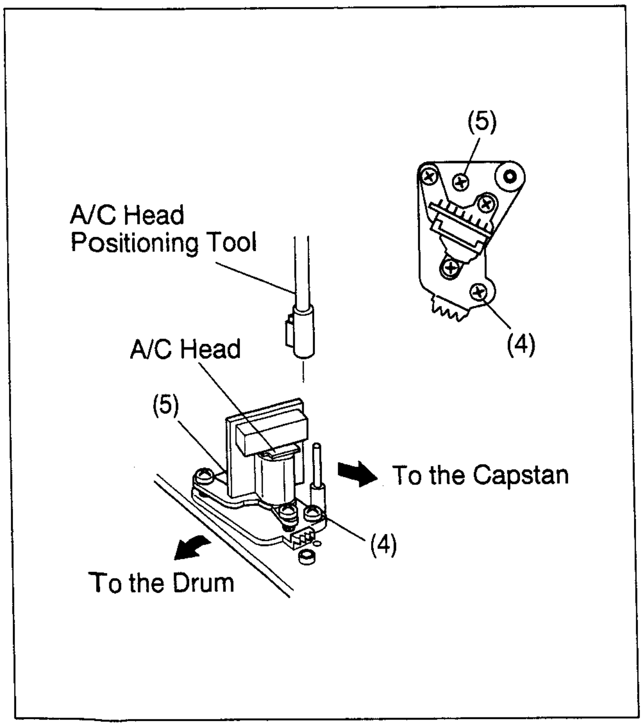


Fig. 2-8-6

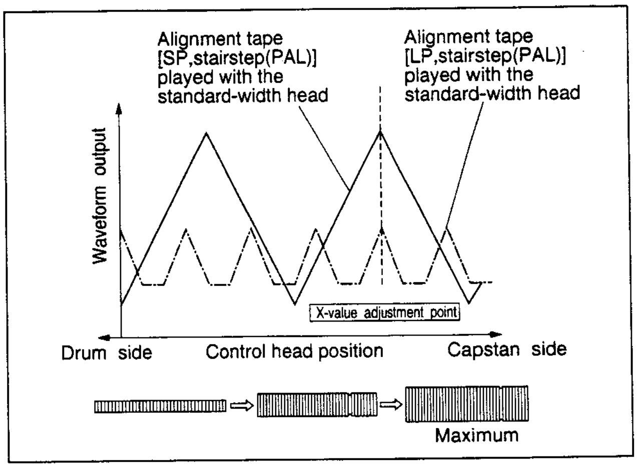


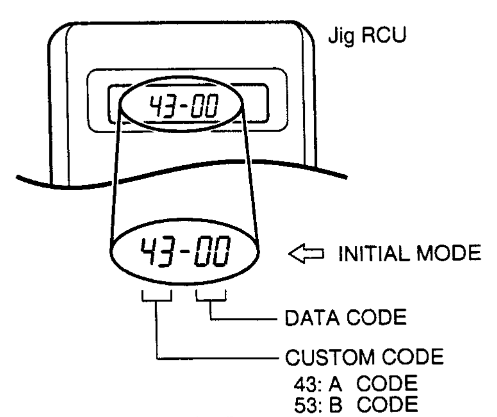
Fig. 2-8-7

2.8.4 Checking/Adjustment of the Standard Tracking Preset

NOTE : *• When using the Jig RCU, transmit the code "7F" to set the Jig RCU to receive mode.*
• When using the Jig RCU, set its custom code to match the custom code of the VCR.

Signal (A)	• Alignment tape [LP,stairstep(PAL)]
Mode (B)	• PB
Equipment (C)	• Oscilloscope
Measuring point (D)	• TP106 (V.PB FM) [Main board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• Jig RCU: Code "50"
Specified value (G)	• Maximum V.PB FM waveform

(1) Play back the alignment tape (A).
(2) Apply the external trigger signal to D.FF (E), to observe the V. PB FM waveform at the measuring point (D).
(3) Confirm that the automatic tracking operation is completed.
(4) Set the VCR to the Audio adjust mode by transmitting the code (F) twice from the Jig RCU. Adjustment is completed unless the VCR enters the eject mode.
(5) If the VCR enters the eject mode, perform adjustment for the audio control head phase (X-value) again.



[Data transmitting method]
Depress the " ⁝ " (3) button after the data code is set.

Fig. 2-8-8

2.8.5 Checking/Adjustment of the Tension Pole Position

Signal (A)	• Back tension cassette gauge
Mode (B)	• PB
Adjustment part (F)	• Mechanism assembly: adjusting pin
Specified value (G)	• 29 - 46 gf•cm

(1) Play back the back tension cassette gauge (A).
(2) Check that the indicated value on the left side gauge is within the specified value (G).
(3) If the indicated value is not within the specified value, perform the adjustment in a following manner.
  1) Set the VCR to the mechanism service mode. (See 1.5 MECHANISM SERVICE MODE.).
  2) Set the VCR to the play back mode and turn the adjusting pin using the flat-blade screwdriver, etc. by paying attention not to come into contact with the 2.5 mm dia. Pole. (See Fig 2-8-9.).

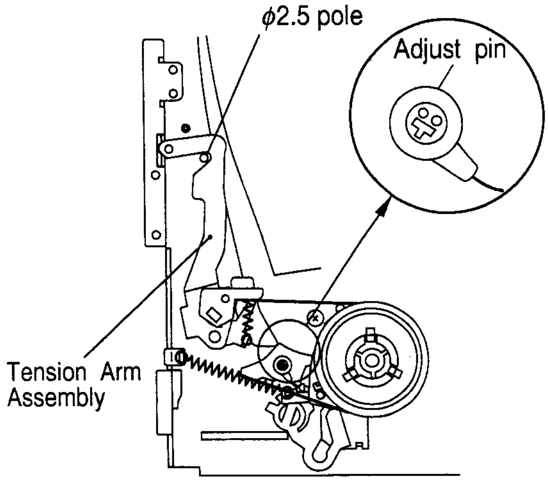


Fig. 2-8-9

SECTION 3
ELECTRICAL ADJUSTMENT

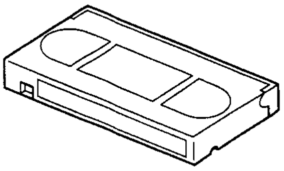
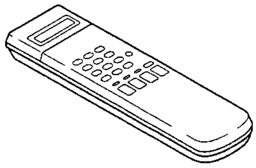
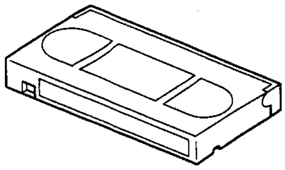
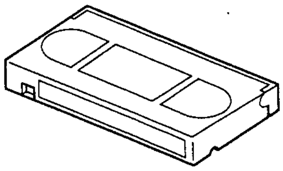
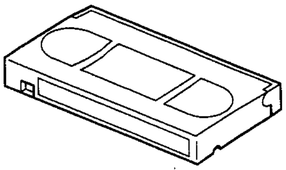
3.1 PRECAUTION

The following adjustment procedures are not only necessary after replacement of consumable mechanical parts or board assemblies, but are also provided as references to be referred to when servicing the electrical circuitry.
In case of trouble with the electrical circuitry, always begin a service by identifying the defective points by using the measuring instruments as described in the following electrical adjustment procedures. After this, proceed to the repair, replacement and/or adjustment. If the required measuring instruments are not available in the field, do not change the potentiometer settings, etc. carelessly.

3.1.1 Required test equipment

① Colour television or monitor
② Oscilloscope: wide-band,dual-trace,triggered delayed sweep
③ Frequency counter
④ Signal generator: RF/IF sweep/marker
⑤ Signal generator: PAL colour bar, stairstep
⑥ Recording tape (VHS tape/S-VHS tape/D-VHS tape)
⑦ Digit-key remote controller(provided)

3.1.2 Required adjustment tools

Alignment tape [SP, stairstep (PAL)] 4822 397 30262	Jig RCU 4822 219 10208
	
Alignment tape (S-VHS, SP/LP, colour bar) 9965 000 01193	Alignment tape (D-VHS, STD, colour bar) 9965 000 02725
	
Alignment tape [SP, stairstep (NTSC)] 4822 397 30259	
	

3.1.3 Colour bar signal,colour bar pattern

- PAL colour bar signal

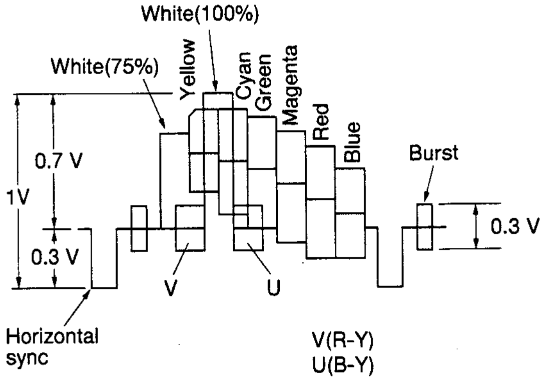

White(100%)
White(75%)
Yellow
Cyan
Green
Magenta
Red
Blue
Burst
0.7 V
1V
0.3 V
0.3 V
V
U
Horizontal sync
V(R-Y)
U(B-Y)

Fig.3-1-1 PAL colour bar signal waveform

- PAL colour bar pattern

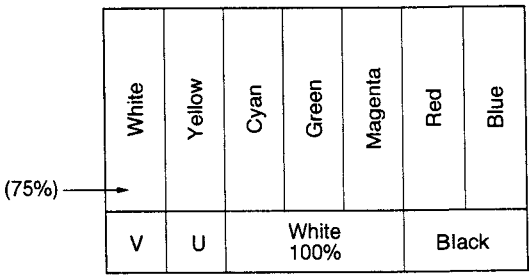
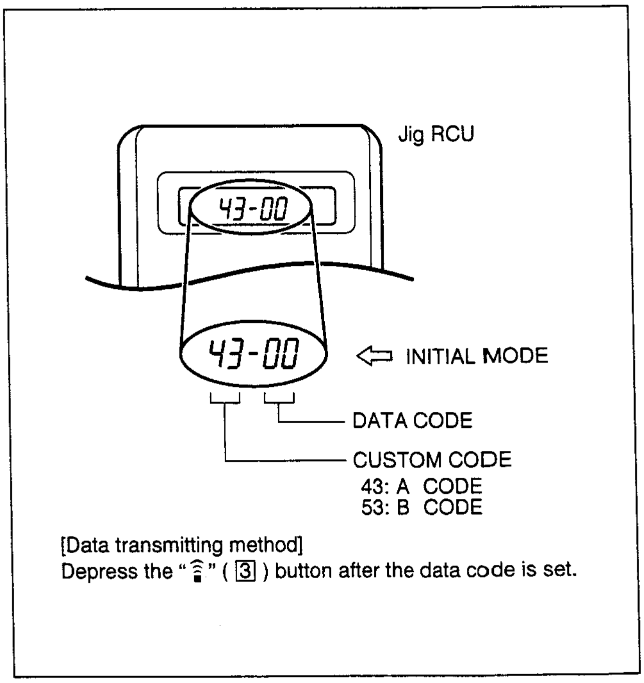

White
Yellow
Cyan
Green
Magenta
Red
Blue
(75%)
V
U
White 100%
Black

Fig.3-1-2 PAL colour bar pattern

3.1.4 Jig RCU

Notes: • *When using the Jig RCU, set its custom code to match the custom code of the VCR.*
• *When using the Jig RCU, transmit the code "7F" to set the Jig RCU to receive mode.*


Jig RCU
43-00
43-00
INITIAL MODE
DATA CODE
CUSTOM CODE
43: A CODE
53: B CODE

[Data transmitting method]
Depress the "⁝" ($\boxed{3}$) button after the data code is set.

Fig. 3-1-3 Jig RCU

3.1.5 EVR Adjustment

Some of the electrical adjustments require the adjustment performed by the EVR system. The Main board ass'y and Digital board ass'y have EEPROMs for storing the EVR adjustment data and user setups.

Notes:
- *In the EVR adjustment mode, the value is varied with the channel buttons (+, –). The adjusted data is stored when the setting mode changes (from PB to STOP, when the tape speed is changed, etc.). Take care to identify the current mode of each adjustment item when making an adjustment.*
- *When changing the address setting in the EVR adjustment mode, use the Jig RCU or the remote controller having numeric keypad with which a numeric code can be directly input.*
  The remote control code of the Jig RCU corresponds to each of the digit keys on the remote controller as follows.

Digit-key	0	1	2	3	4	5	6	7	8	9
Code	20	21	22	23	24	25	26	27	28	29

- *As the counter indication and remaining tape indication are not displayed FDP during the EVR (MAIN) adjustment mode, check them on the TV monitor screen.*
- *When performing the EVR (MAIN) / EVR (DIGITAL) adjustment, confirm that the FDP / OSD indication is changed to the EVR mode, as shown below.*

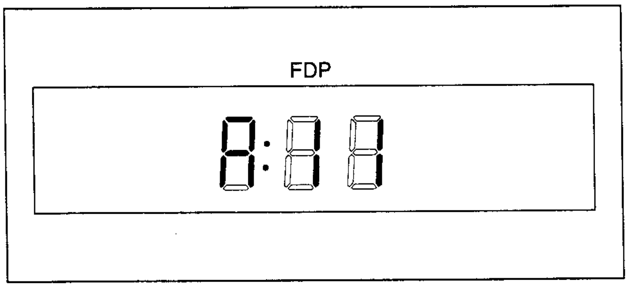


Fig. 3-1-4 EVR [MAIN] mode

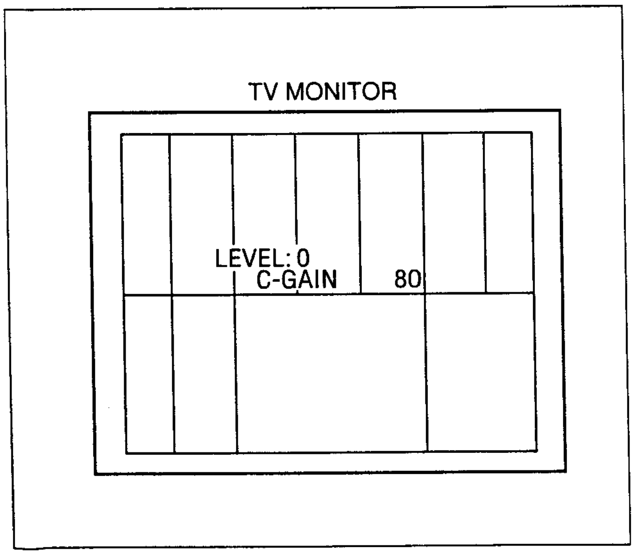


Fig. 3-1-5 EVR [DIGITAL] mode

3.1.6 Switch settings and standard precautions

The SW settings of the VCR and the standard precautions for the electrical adjustments are as follows.

Notes:
- *In the Signal column of the adjustment chart, "Ext. S-input" means the Y/C separated video signal and "Ext. input" means the composite video signal input.*
- *Set the switches as shown below unless otherwise specified on the relevant adjustment chart. The switches that are not listed below can be set as desired.*

B.E.S.T. (D.S.P.C.)	OFF
Picture control (Smart picture)	Normal (Natural)
TBC	ON
Digital 3R	ON

3.2 SERVO CIRCUIT

Note: • *Unless otherwise specified, the measurement points and adjusting parts are located on the Main board.*

3.2.1 Switching point

Signal	(A1) (A2)	• Alignment tape [SP, stairstep (PAL)] • Alignment tape [SP, stairstep (NTSC)]
Mode	(B)	• PB • TBC: OFF
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• VIDEO OUT terminal • TP106 (V.PB FM)
External trigger	(E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part	(F)	• Jig RCU: Code "51" or "52"
Specified value	(G)	• 8.5 ± 0.5H [SP, stairstep (PAL)] • 7.5 ± 0.5H [SP, stairstep (NTSC)]

(1) Play back the stairstep signal of the alignment tape (A1).
(2) Apply the external trigger signal to D.FF (E) to observe the VIDEO OUT waveform and V.PB FM waveform at the measuring points (D1) and (D2).
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Adjust tracking by pressing the channel buttons (+, –) so that the V.PB FM waveform becomes maximum.
(5) Transmit the code (F) from the Jig RCU to adjust so that the trigger point of the VIDEO OUT waveform is changed from the trailing edge of the V.sync signal becomes the specified value (G).
(6) Set the VCR to the stop mode or eject mode.
(7) Play back the stairstep signal of the alignment tape (A2).
(8) Repeat steps (2) to (6).

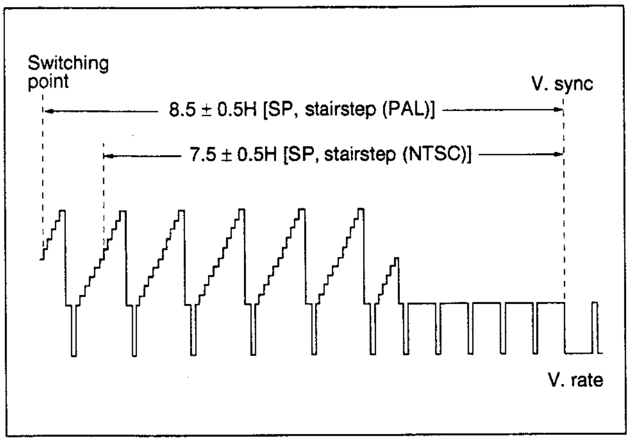

Switching point
V. sync
8.5 ± 0.5H [SP, stairstep (PAL)]
7.5 ± 0.5H [SP, stairstep (NTSC)]
V. rate

Fig. 3-2-1 Switching point

3.2.2 D-VHS switching point

Signal (A)	• Alignment tape [D-VHS, STD, colour bar]
Mode (B)	• PB
Equipment (C)	• Oscilloscope
Measuring point (D)	• TP6006 (PB DATA) [Pre/Rec board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• Jig RCU: Code "51" or "52"
Specified value (G)	• 230 ± 20 μsec

(1) Play back the alignment tape (A).
(2) Apply the external trigger signal to D.FF (E) to observe the D-VHS envelope waveform at the measuring point (D).
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Adjust tracking by pressing the channel buttons (+, –) so that the envelope output becomes maximum.
(5) Transmit the code (F) from the Jig RCU to adjust so that the duration from the waveform end (Hi/Low switching point of D.FF) to the rising edge of subcode area becomes the specified value (G).
(6) Set the VCR to the stop mode or eject mode.

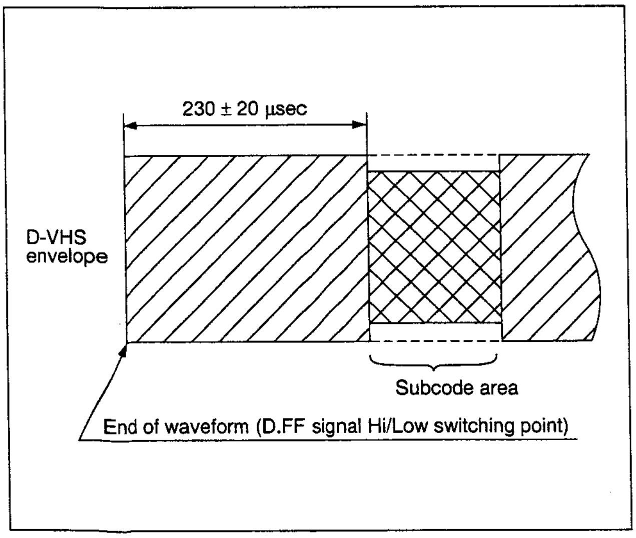


Fig. 3-2-2 D-VHS switching point

3.2.3 Slow tracking preset

Signal (A)	• Ext. input • Colour bar signal [PAL]
Mode (B)	• REC (SP/LP) → Slow PB
Measuring point (D)	• TV-Monitor
Adjustment part (F)	• Jig RCU: Code "7" or "72"
Specified value (G)	• Minimum noise

(1) Record the colour bar signal in the SP mode, and play back the recorded signal.
(2) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(3) Set the VCR to the FWD slow mode.
(4) Transmit the code (F) from the Jig RCU to adjust so that the noise bar becomes the specified value (G) on the TV monitor in the slow mode.
(5) Set the VCR to the Stop mode.
(6) Confirm that the noise bar is (G) on the TV monitor in the slow mode.
(7) Repeat steps (3) to (6) in the REV slow mode.
(8) Repeat steps (1) to (7) in the LP mode.

Note: • *For FWD slow playback, transmit the "08" code from the Jig RCU to enter the slow playback mode, and transmit the "D0" code for REV slow mode.*

3.3 VIDEO CIRCUIT

Note: • *Unless otherwise specified, all measurement points and adjustment parts are located on the Main board.*

3.3.1 EE Y level

Signal (A1) (A2)	• Ext. input • Colour bar signal [PAL]
Mode (B)	• EE
Equipment (C)	• Oscilloscope
Measuring point (D)	• Y OUT terminal (75Ω terminated)
EVR mode (F1) EVR address (F2)	• Jig RCU: Code "57" • A:11 (Press remote controller "1" key twice)
Specified value (G)	• 1.00 ± 0.03 Vp-p
Adjustment tool (H)	• Jig RCU • Digit-key remote controller

(1) Observe the Y OUT waveform at the measuring point (D).
(2) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU for more than 2 seconds.
(3) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
(4) Adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the Y level of the Y OUT waveform becomes the specified value (G).
(5) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

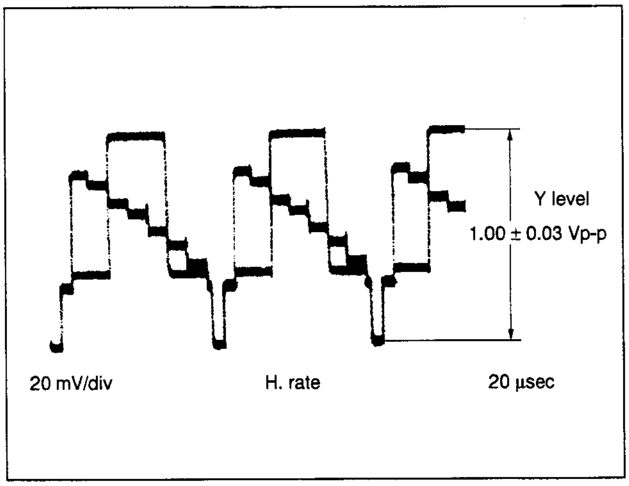


Fig. 3-3-1 EE Y level

3.3.2 SP/LP REC colour level

Signal	(A1) (A2) (A3)	• Alignment tape [S-VHS, SP/LP, colour bar] • Ext. input • Colour bar signal [PAL]
Mode	(B1) (B2) (B3)	• S-VHS • PB • REC (SP/LP) → PB
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• TP106 (V.PB FM) • PB colour output of the LPF
External trigger	(E)	• TP111 (D.FF) [Pre/Rec board]
EVR mode EVR address	(F1) (F2)	• Jig RCU: Code "57" • A:02 (Press remote controller "0" and "2" keys)
Specified value	(G)	• SP: "B" x 125 ± 5% • LP: "B" x 125 ± 5%
Adjustment tool	(H1) (H2) (H3)	• Jig RCU • Digit-key remote controller • LPF (See Fig. 3-3-2.)

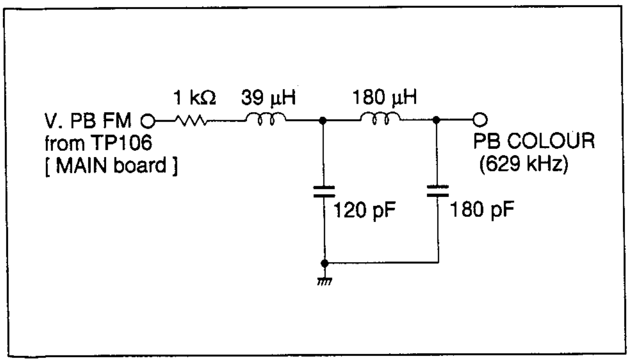


Fig. 3-3-2 LPF

(1) Connect the adjustment tool (H3) to the measuring point (D1).

(2) Apply the external trigger signal to D.FF (E) to observe the PB colour waveform at the measuring point.

(3) Play back the SP colour bar signal of the alignment tape (A1).

(4) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)

(5) Adjust tracking by pressing the channel buttons (+, –) so that the PB colour waveform becomes maximum. Make a note of the higher PB colour level as "B" at this time.

(6) Record the colour bar signal in the S-VHS SP mode, and play back the recorded signal.

(7) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU for more than 2 seconds.

(8) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.

(9) Adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the higher level channel becomes the specified value (G) of the note "B" level as shown in Fig. 3-3-3. (Adjust before recording, then confirm it by playing back.)

(10) After adjustment, record the colour bar signal then playing it back again. At this time, confirm that there is no inverting phenomenon or noise appearing on the playback screen.

(11) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

(12) Repeat steps (3) to (11) in the S-VHS LP mode.

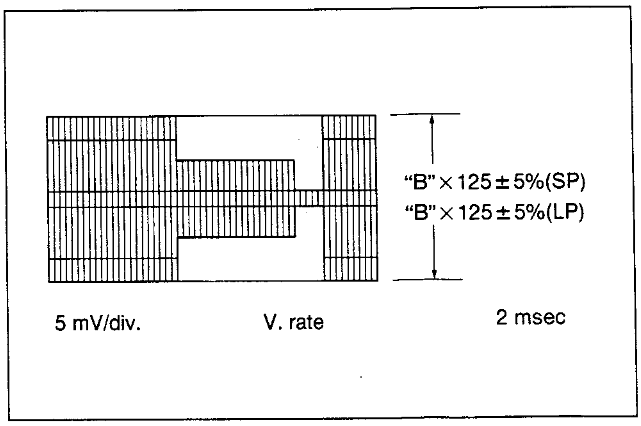


Fig. 3-3-3 SP/LP REC colour level

3.3.3 PB Y level (S-VHS/VHS)

Signal	(A1) (A2)	• Ext. input • Colour bar signal [PAL]
Mode	(B1) (B2)	• S-VHS/VHS • REC (SP) → PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• Y OUT terminal (75Ω terminated)
EVR mode EVR address	(F1) (F2)	• Jig RCU: Code "57" • A:11 (Press remote controller "1" key twice)
Specified value	(G)	• 1.00 ± 0.03 Vp-p
Adjustment tool	(H)	• Jig RCU • Digit-key remote controller

(1) Observe the Y OUT waveform at the measuring point (D).
(2) Record the colour bar signal in the S-VHS SP mode, and play back the recorded signal.
(3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU for more than 2 seconds.
(4) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
(5) Adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the Y level of the Y OUT waveform becomes the specified value (G).
(6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
(7) Repeat steps (2) to (6) in the VHS SP mode.

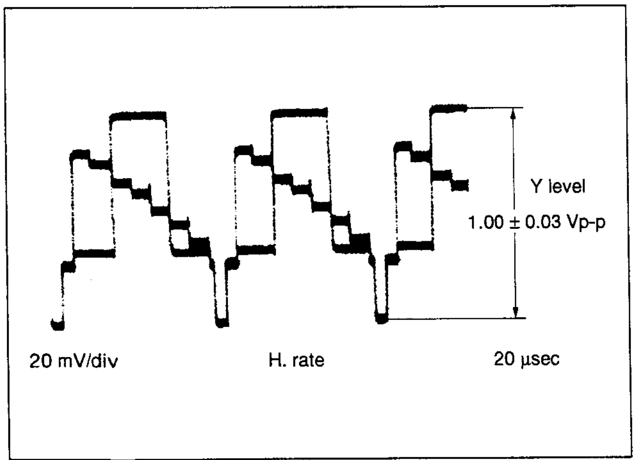


Fig. 3-3-4 PB Y level

3.3.4 Video EQ (Frequency response)

Signal	(A1) (A2)	• Ext. S-input • Video sweep signal
Mode	(B1) (B2) (B3)	• S-VHS • REC (SP/LP) → PB • Picture Control (Smart Picture) REC: Normal (Natural) PB: Edit (Distinct)
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• Y OUT terminal (75Ω terminated)
External trigger	(E)	• TP111 (D.FF) [Pre/Rec board]
EVR mode EVR address	(F1) (F2)	• Jig RCU: Code "57" • A:03 (Press remote controller "0" and "3" keys)
Specified value	(G)	• SP: 3.2 ± 0.2 scale (–2 ±0.5 dB) • LP: 2.8 ± 0.2 scale (–3 ±0.5 dB)
Adjustment tool	(H)	• Jig RCU • Digit-key remote controller

(1) Apply the external trigger signal to D.FF (E) to observe the Y OUT waveform at the measuring point (D).
(2) Record the sweep signal in the S-VHS SP mode, and play back the recorded signal.
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU for more than 2 seconds.
(5) Set the EVR address to (F2) by pressing the button of the digit-key remote controller.
(6) Set the 100 kHz marker level of the channel having higher 3 MHz marker level of the Y OUT waveform (sweep signal) to the "4" scale on the oscilloscope. In this condition, adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the 3 MHz marker level reaches the specified value (G).
(7) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
(8) Repeat steps (2) to (7) in the S-VHS LP mode.

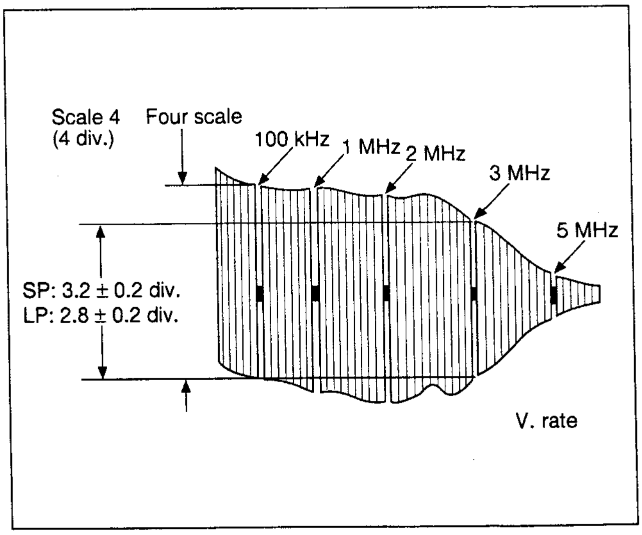


Fig. 3-3-5 Video EQ (Frequency Response)

3.3.5 Pilot burst level

Signal	(A1) (A2)	• Ext. input • Colour bar signal [PAL]
Mode	(B1) (B2)	• S-VHS • EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP1001 (FSC PHASE) [3D SVHS board]
Adjustment part	(F)	• VR1002 (P. BURST LEVEL) [3D SVHS board]
Specified value	(G)	• "B" x 110 ± 10%

(1) Insert the S-VHS tape.
(2) Observe the waveform appeared at the measuring point (D).
(3) Adjust the adjustment part (F) so that the Pilot burst level becomes the specified value (G) against the value of the Burst level "B".

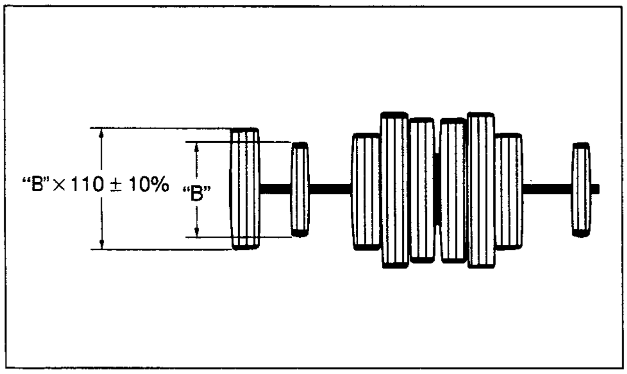


Fig. 3-3-6 Pilot burst level

3.3.6 AUTO PICTURE initial setting

Signal	(A1) (A2)	• Ext. input • Mono-scope
Mode	(B1) (B2)	• S-VHS • REC (SP/LP) → PB
Adjustment part	(F)	• Jig RCU: Code "58"
Specified value	(G)	• Stop mode

(1) Record the mono-scope signal in the S-VHS SP mode, and play back the recorded signal.
(2) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(3) Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed. When the VCR enters the eject mode, repeat steps (1) to (3) again.
(4) Repeat steps (1) to (3) in the S-VHS LP mode.

3.4 3D SVHS CIRCUIT

Note: • *Unless otherwise specified, the measurement points and adjusting parts are located on the 3D SVHS board.*

3.4.1 D/A level

Signal	(A1) (A2)	• Ext. S-input / Ext. input • Colour bar signal [PAL]
Mode	(B1) (B2)	• S-VHS • EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• CN1002 - pin 28 (Y OUT) [3D SVHS board]
Adjustment part	(F)	• VR1401 (DA Y LEVEL) [3D SVHS board]
Specified value (Note)	(G)	• 2.05 ± 0.03 Vp-p (reference)

(1) Observe the Y OUT waveform at the measuring point (D).
(2) Check the Y level value when the External S-input (Y/C separated video signal).
(3) Switch the input signal to the External input (composite video signal), and adjust the adjustment part (F) so that the Y level becomes the same value observed in step (2).

Note: • *The specified value (G) is just a reference value to be obtained when the External S-Video (Y/C separated video) signal is input. In actual adjustment, set it to the value observed in step (2).*

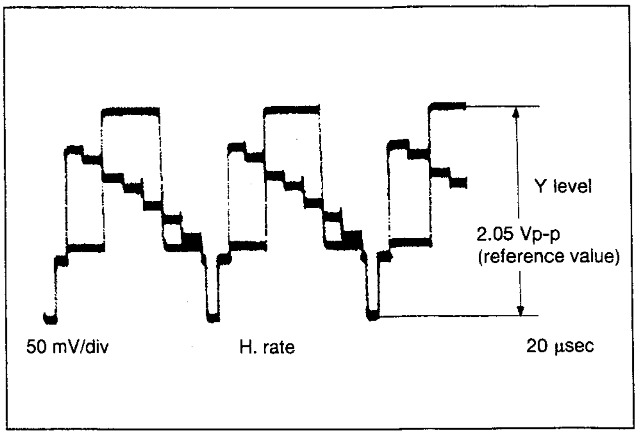


Fig. 3-4-1 D/A level

3.5 AUDIO CIRCUIT

Notes:
- *Unless otherwise specified, the measurement points and adjusting parts are located on the Main board.*
- *This adjustment should be done after the "SP/LP REC colour level adjustment" for the video circuit has been completed.*
- *GND (Ground) should be taken from the Tuner unit shield.*

3.5.1 Audio REC FM

Signal	(A1) (A2) (A3)	• Ext. input • Audio: No signal • Video: Colour bar signal [PAL]
Mode	(B1) (B2)	• S-VHS • REC (LP) → PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP2253 (A. PB FM) [Pre/Rec board]
External trigger	(E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part	(F)	• VR2251 (A.REC.FM) [Pre/Rec board]
Specified value	(G1)	• 600 ± 100 mVp-p
	(G2)	• More than 400 mVp-p

(1) Apply the external trigger signal to D.FF (E) to observe the Audio PB FM waveform at the measuring point (D).
(2) Record the colour bar signal with no audio signal input in the S-VHS LP mode, and play back the recorded signal.
(3) Press the channel buttons (+, –) simultaneously to enter the manual tracking mode. (This also brings tracking to the center.)
(4) Adjust the adjustment part (F) so that the A.PB FM level of the higher channel level becomes the specified value (G1). (Adjust before recording, then confirm it by playing back.)
(5) If the specified value (G1) is not obtained, adjust the adjustment part (F) so that the waveform level of the lower channel level becomes the specified value (G2). (Adjust before recording, then confirm it by playing back.)

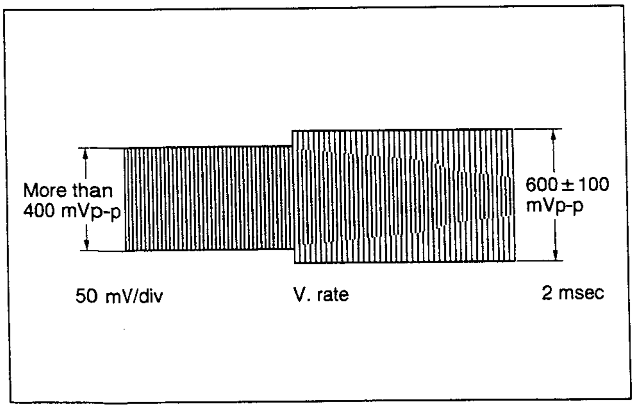


Fig. 3-5-1 Audio REC

3.6 DIGITAL CIRCUIT

Note: • *Unless otherwise specified, the measurement points and adjusting parts are located on the Digital board.*

3.6.1 CODEC AD Y input level

Signal	(A1) (A2) (A3)	• Ext. S-input • Colour bar signal [PAL] • DF-300
Mode	(B)	• D-VHS
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP8614 (AD Y IN)
Adjustment part	(F)	• VR8601 (CODEC AD Y IN)
Specified value	(G)	• 1.48 ± 0.01 Vp-p

(1) Insert the D-VHS tape (A3).
(2) Observe the Y waveform at the measuring point (D).
(3) Adjust the adjustment part (F) so that the Y level of the Y waveform becomes the specified value (G).

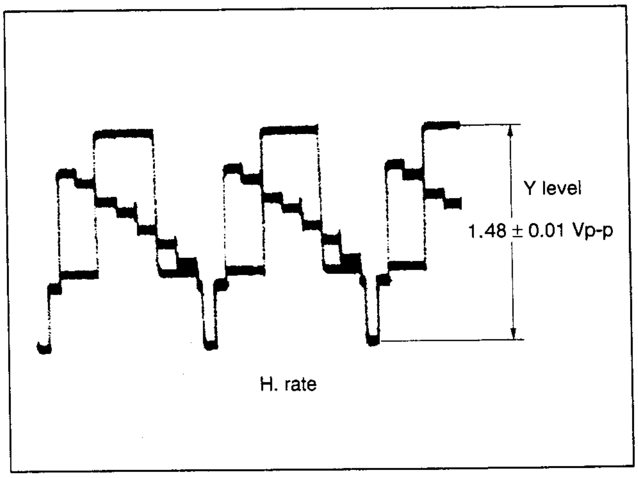


Fig. 3-6-1 CODEC AD Y input level

3.6.2 CODEC S-Y level

Signal	(A1)	• Ext. S-input
	(A2)	• Colour bar signal [PAL]
	(A3)	• DF-300
Mode	(B1)	• D-VHS
	(B2)	• REC (STD) → PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• Y OUT terminal (75Ω terminated)
EVR mode	(F1)	• Jig RCU: Code "62"
EVR address	(F2)	• "0" Y-GAIN [EVR (DIGITAL)] (Press remote controller "0" key)
	(F3)	• Jig RCU: Code "3C"
Specified value	(G)	• 1.00 ± 0.02 Vp-p
Adjustment tool	(H)	• Jig RCU • Digit-key remote controller

(1) Observe the Y OUT waveform at the measuring point (D).

(2) Record the colour bar signal in the D-VHS STD mode, and play back the recorded signal.

(3) Set the VCR to the EVR (DIGITAL) mode by transmitting the code (F1) from the Jig RCU.

(4) Set the EVR (DIGITAL) address to (F2) by pressing the button of the digit-key remote controller.

(5) Adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the Y level of the Y OUT waveform becomes the specified value (G).

(6) Release the EVR (DIGITAL) mode of the VCR by transmitting the code (F3) from the Jig RCU. (When the EVR mode is released, the adjusted data is memorized.)

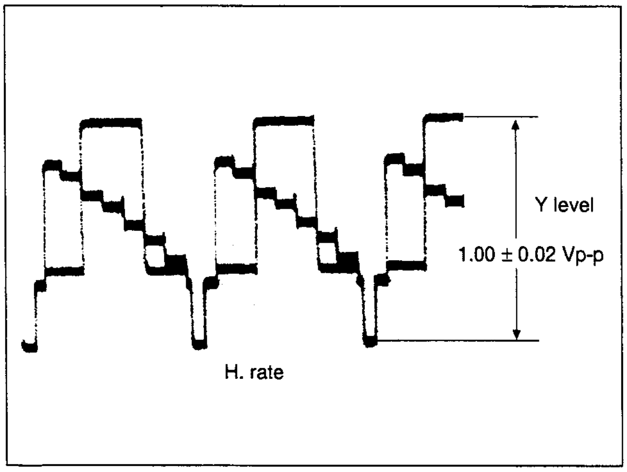


Fig. 3-6-2 CODEC S-Y level

3.6.3 CODEC S-C level

Signal	(A1)	• Ext. S-input
	(A2)	• Colour bar signal [PAL]
	(A3)	• DF-300
Mode	(B1)	• D-VHS
	(B2)	• REC (STD) → PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• C OUT terminal (75Ω terminated)
EVR mode	(F1)	• Jig RCU: Code "62"
EVR address	(F2)	• "3" C-GAIN [EVR (DIGITAL)] (Press remote controller "3" key)
	(F3)	• Jig RCU: Code "3C"
Specified value	(G)	• 300 ± 10 mVp-p
Adjustment tool	(H)	• Jig RCU • Digit-key remote controller

(1) Observe the C OUT waveform at the measuring point (D).

(2) Record the colour bar signal in the D-VHS STD mode, and play back the recorded signal.

(3) Set the VCR to the EVR (DIGITAL) mode by transmitting the code (F1) from the Jig RCU.

(4) Set the EVR (DIGITAL) address to (F2) by pressing the button of the digit-key remote controller.

(5) Adjust with the channel buttons (+, –) on the VCR (or on the remote controller) so that the Burst level of the C OUT waveform becomes the specified value (G).

(6) Release the EVR (DIGITAL) mode of the VCR by transmitting the code (F3) from the Jig RCU. (When the EVR mode is released, the adjusted data is memorized.)

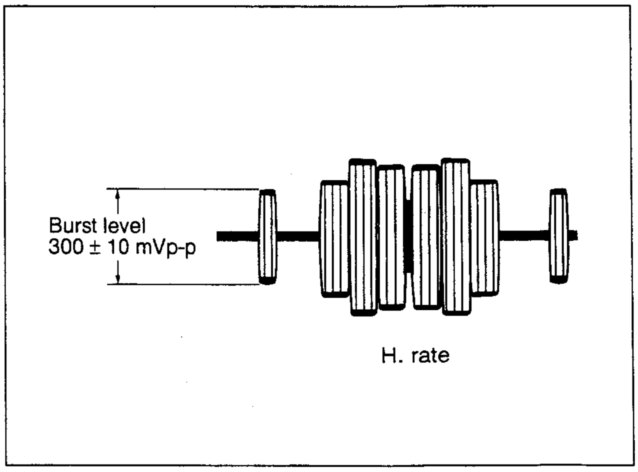


Fig. 3-6-3 CODEC S-C level

3.6.4 D-VHS REC level

Signal (A1) (A2) (A3)	• Ext. S-input • Colour bar signal [PAL] • DF-300
Mode (B1) (B2)	• D-VHS • REC (STD)
Equipment (C)	• Oscilloscope
Measuring point (D)	• TP6001 (REC LEVEL) [Pre/Rec board]
External trigger (E)	• TP111 (D.FF) [Pre/Rec board]
Adjustment part (F)	• VR6021 (DVHS REC LEV) [Pre/Rec board]
Specified value (G)	• 70 - 75 mVp-p

(1) Insert the D-VHS tape (A3) and record the signal (A2).
(2) Apply the external trigger signal to D.FF (E) to observe the waveform appeared at the measuring point (D).
(3) Adjust the adjustment part (F) so that the waveform signal level "a" becomes the specified value (G).

Notes: • *GND (Ground) should be taken from the Pre/Rec board shield.*
• *The signal level adjustment should be performed by setting the center of the darkened section on the CRT bright line.*

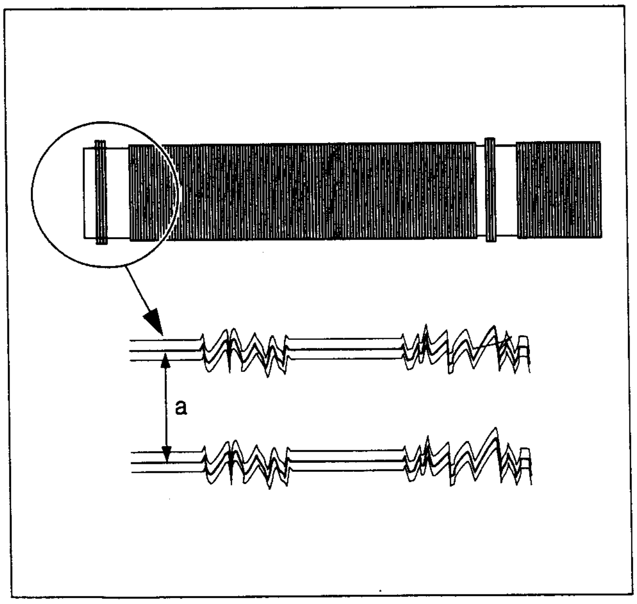


Fig. 3-6-4 D-VHS REC level

3.6.5 PLL f0

Signal (A)	• DF-300
Mode (B1) (B2)	• D-VHS • EE
Adjustment part (F)	• Jig RCU: Code "60"
Specified value (G)	• Stop mode

(1) Insert the D-VHS tape (A).
(2) Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed. When the VCR enters the eject mode, repeat steps (1) and (2) again.

Notes: • *Do not connect the probe or any other jig to the terminal or shield case of the Pre/Rec board during adjustment.*
• *If auto adjustment is not completed by the above procedure, re-adjust the Adjustment Item 3.6.4 again.*

3.7 SYSCON CIRCUIT

Notes: • *Unless otherwise specified, the measurement points and adjusting parts are located on the Main board.*
• *When perform this adjustment, remove the Mechanism assembly.*

3.7.1 Timer clock

Signal (A)	• No signal
Mode (B)	• EE
Equipment (C)	• Frequency counter
Measuring point (D1) Short point (D2) (D3)	• IC3001 pin61 • IC3001 pin24 • C3026 + and –
Adjustment part (F)	• C3025 (TIMER CLOCK)
Specified value (G)	• 1024.008 ± 0.001 Hz (976.5549 ± 0.0010 μsec)

(1) Connect the frequency counter to the measuring point (D1).
(2) Connect the short wire between the short point (D2) and Vcc (5V).
(3) Short the leads of capacitor (D3) once in order to reset the microprocessor of the SYSCON.
(4) Disconnect the short wire between the short point (D2) and Vcc then connect it again.
(5) Adjust the Adjustment part (F) so that the output frequency becomes the specified value (G).

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

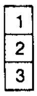
1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: K (1000), M: M (1000K)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

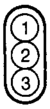
AUX : Active at high

$\overline{\text{AUX}}$ or AUX(L) : Active at low

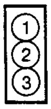
3. Interpreting Connector indications



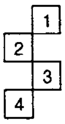
Removable connector



Wire soldered directly on board



Non-removable Board connector



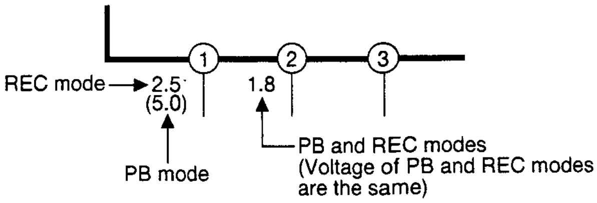
Board to Board

⟶
⟵
⟷

Connected pattern on board
The arrows indicate signal path

4. Voltage measurement

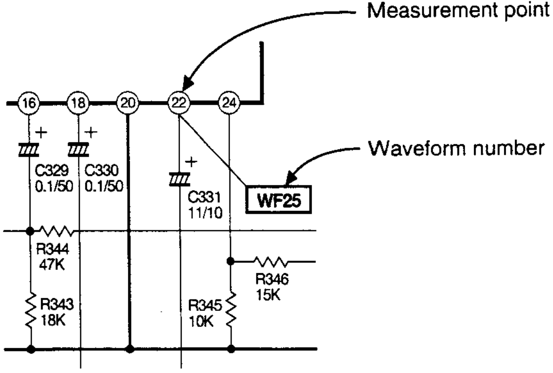
1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
   — : Unmeasurable or unnecessary to measure
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, Normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.


1
2
3
REC mode
2.5
(5.0)
1.8
PB mode
PB and REC modes
(Voltage of PB and REC modes are the same)

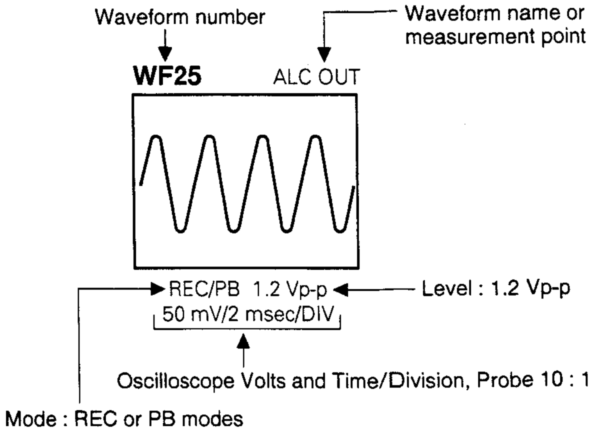
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

1) Video circuits
   REC : Colour bar signal in SP mode, normal VHS mode
   PB : Alignment tape, colour bar SP mode, normal VHS mode
2) Audio circuits
   REC : 1KHz, –8 dBs sine wave signal in SP mode, normal VHS mode
   PB : REC then playback it
3) Movie Camera circuits
   Measured using a correctly illuminated gray scale or colour bar test chatrs in the E-E mode
4) Indication on schematic diagram
   Waveform indications on the schematic diagram are as shown below.


Measurement point
16
18
20
22
24
Waveform number
C329
0.1/50
C330
0.1/50
C331
11/10
WF25
R344
47K
R346
15K
R343
18K
R345
10K

5) Waveform indications


Waveform number
Waveform name or measurement point
WF25
ALC OUT
REC/PB 1.2 Vp-p
Level : 1.2 Vp-p
50 mV/2 msec/DIV
Oscilloscope Volts and Time/Division, Probe 10 : 1
Mode : REC or PB modes

6. Signal path Symbols

The arrows indicate the signal path as follows.

⇨ Playback signal path

▭▶ Playback and recording signal path

➡ Recording signal path
(including E-E signal path)

⇨▷ Capstan servo path

➡▶ Drum servo path

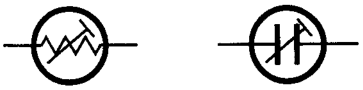
(Example)

⇨ R-Y Playback R-Y signal path

➡ Y Recording Y signal path

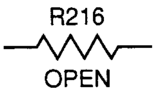
7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



CIRCUIT BOARD NOTES

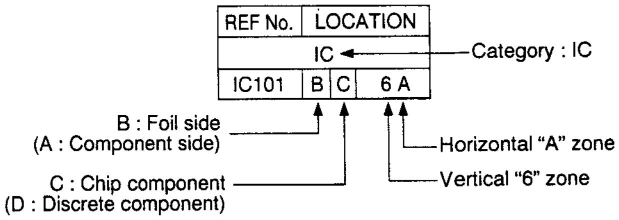
1. Foil and Component sides

1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.

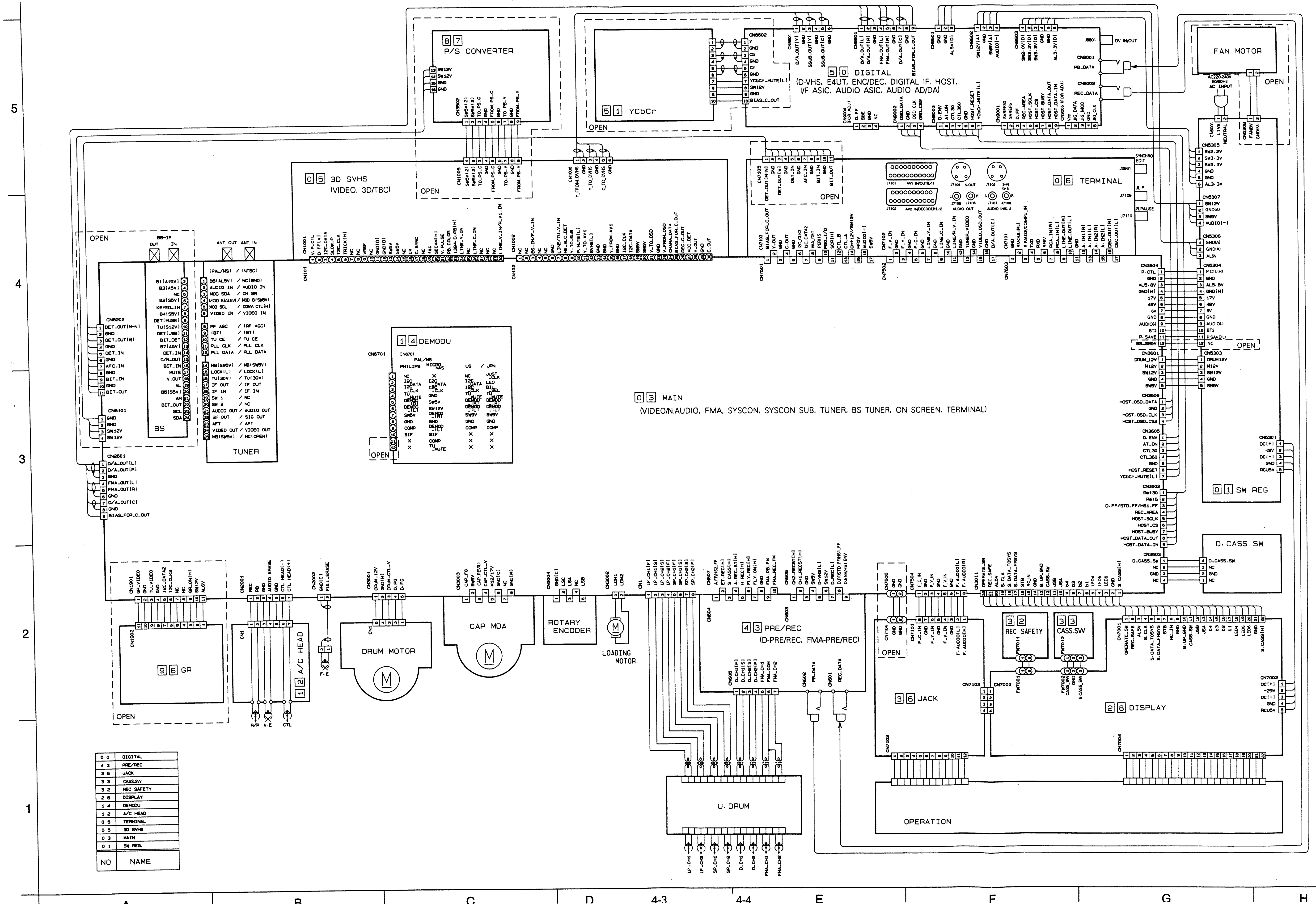
2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

Parts location are indicated by guide scale on the circuit board.


REF No.
LOCATION
IC
Category : IC
IC101
B
C
6 A
B : Foil side
(A : Component side)
C : Chip component
(D : Discrete component)
Horizontal "A" zone
Vertical "6" zone

4.1 BOARD INTERCONNECTIONS

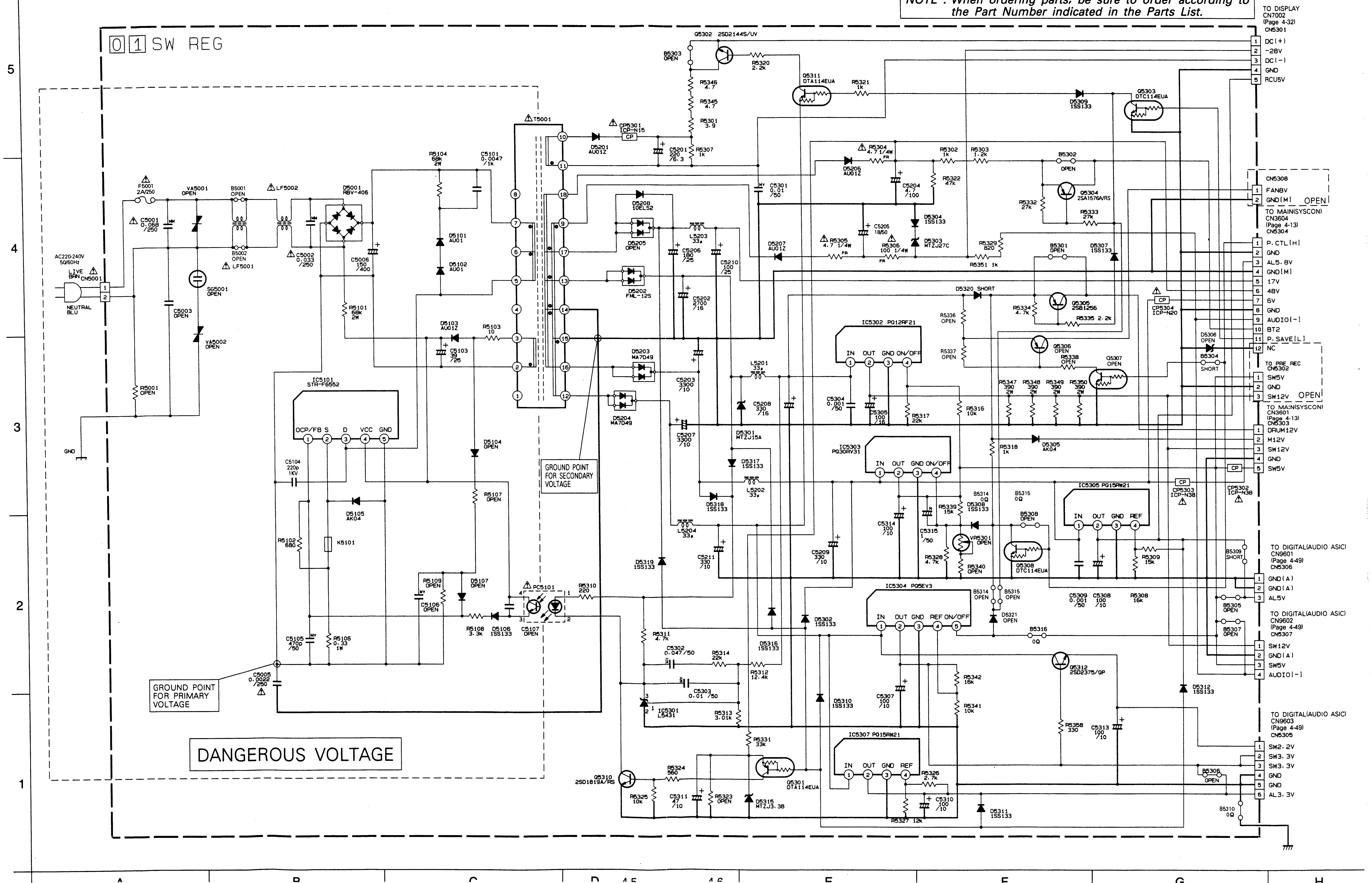


8 7 P/S CONVERTER
5 1 YCbCr
5 0 DIGITAL (D-VHS, E4UT, ENC/DEC, DIGITAL IF, HOST, I/F ASIC, AUDIO ASIC, AUDIO AD/DA)
FAN MOTOR
AC220-240V 50/60Hz AC INPUT
0 5 3D SVHS (VIDEO, 3D/TBC)
0 6 TERMINAL
BS-IF
BS
TUNER
1 4 DEMODU
0 3 MAIN (VIDEO/N.AUDIO, FMA, SYSCON, SYSCON SUB, TUNER, BS TUNER, ON SCREEN, TERMINAL)
0 1 SW REG
D.CASS SW
9 6 GR
1 2 A/C HEAD
DRUM MOTOR
CAP MDA
ROTARY ENCODER
LOADING MOTOR
4 3 PRE/REC (D-PRE/REC, FMA-PRE/REC)
3 2 REC SAFETY
3 3 CASS.SW
3 6 JACK
2 8 DISPLAY
U. DRUM
OPERATION
OPEN
DV IN/OUT
1
2
3
4
5
A
B
C
D
E
F
G
H

NO	NAME
5 0	DIGITAL
4 3	PRE/REC
3 6	JACK
3 3	CASS.SW
3 2	REC SAFETY
2 8	DISPLAY
1 4	DEMODU
1 2	A/C HEAD
0 6	TERMINAL
0 5	3D SVHS
0 3	MAIN
0 1	SW REG.

4.2 SWITCHING REGULATOR SCHEMATIC DIAGRAM

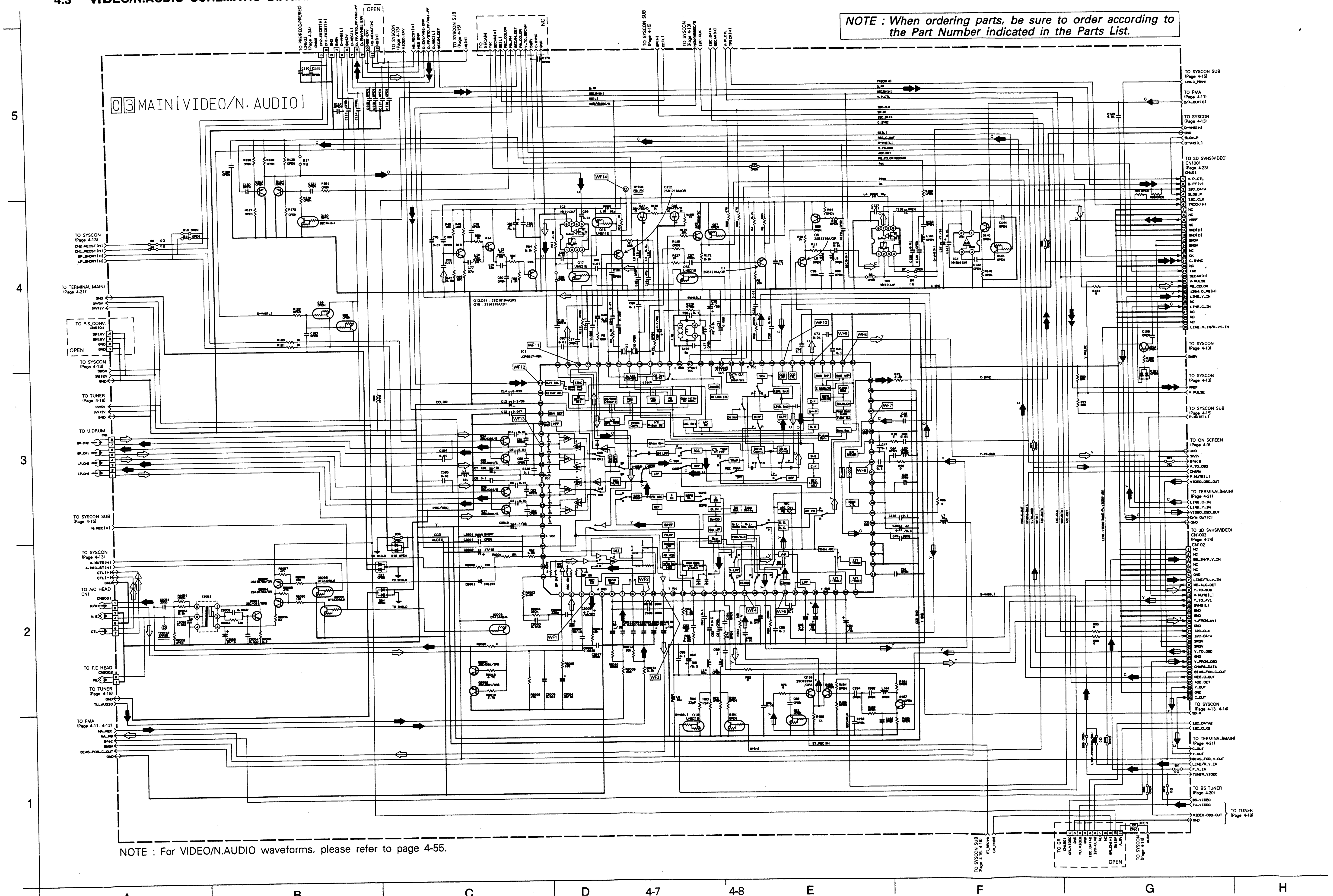
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



01 SW REG
DANGEROUS VOLTAGE
GROUND POINT FOR PRIMARY VOLTAGE
GROUND POINT FOR SECONDARY VOLTAGE
AC220-240V 50/60Hz
LIVE BRN
NEUTRAL BLU
CN5001
GND
F5001 2A/250
C5001 0.068 /250
VA5001 OPEN
VA5002 OPEN
SG5001 OPEN
C5003 OPEN
R5001 OPEN
B5001 OPEN
B5002 OPEN
LF5001
LF5002
C5002 0.033 /250
D5001 RBV-406
C5006 150 /400
R5104 68k 2W
C5101 0.0047 /1k
D5101 AU01
D5102 AU01
R5101 68k 2W
D5103 AU01Z
C5103 39 /25
R5103 10
T5001
IC5101 STR-F6552
OCP/FB S D VCC GND
C5104 220p 1KV
D5105 AK04
R5102 680
K5101
D5104 OPEN
R5107 OPEN
R5109 OPEN
C5106 OPEN
D5107 OPEN
R5108 3.3k
D5106 1SS133
C5107 OPEN
PC5101
C5105 470p /50
R5106 0.33 1W
C5005 0.0022 /250
R5310 220
D5201 AU01Z
CP5301 ICP-N15
C5201 220 /6.3
R5307 1k
R5301 3.9
R5345 4.7
R5346 4.7
B5303 OPEN
Q5302 2SD2144S/UV
R5320 2.2k
Q5311 DTA114EUA
R5321 1k
D5309 1SS133
Q5303 DTC114EUA
C5301 0.01 /50
D5208 10ELS2
D5205 OPEN
L5203 33μ
C5206 100 /25
C5210 100 /25
D5202 FML-12S
C5202 2700 /16
D5207 AU01Z
R5304 4.7 1/4W
D5206 AU01Z
C5204 4.7 /100
C5205 18/50
R5305 4.7 1/4W
R5306 100 1/4W
D5304 1SS133
D5303 MTZJ27C
R5322 47k
R5302 1k
R5303 1.2k
B5302 OPEN
R5332 27k
Q5304 2SA1576A/RS
R5333 27k
R5329 820
R5351 1k
B5301 OPEN
D5307 1SS133
D5320 SHORT
R5334 4.7k
Q5305 2SB1256
R5335 2.2k
R5336 OPEN
R5337 OPEN
Q5306 OPEN
R5338 OPEN
Q5307 OPEN
D5203 MA7D49
D5204 MA7D49
L5201 33μ
C5203 3300 /10
C5208 330 /16
C5207 3300 /10
D5301 MTZJ15A
D5317 1SS133
L5202 33μ
D5318 1SS133
L5204 33μ
C5211 330 /10
D5319 1SS133
IC5302 PQ12RF21
IN OUT GND ON/OFF
C5304 0.001 /50
C5305 100 /16
R5317 22k
R5316 10k
R5347 390 2W
R5348 390 2W
R5349 390 2W
R5350 390 2W
IC5303 PQ30RV31
R5318 1k
D5305 AK04
C5314 100 /10
C5315 1 /50
R5339 15k
B5314 0Ω
D5308 1SS133
VR5301 OPEN
R5328 4.7k
R5340 OPEN
B5315 0Ω
B5308 OPEN
Q5308 DTC114EUA
IC5305 PQ15RW21
IN OUT GND REF
R5309 15k
C5309 0.001 /50
C5308 100 /10
R5308 16k
C5209 330 /10
CP5303 ICP-N38
CP5302 ICP-N38
CP5304 ICP-N20
IC5304 PQ5EV3
IN OUT GND REF ON/OFF
B5314 OPEN
B5315 OPEN
D5321 OPEN
B5316 0Ω
D5302 1SS133
D5316 1SS133
R5311 4.7k
C5302 0.047/50
R5314 22k
R5312 12.4k
C5303 0.01 /50
IC5301 L5431
R5313 3.01k
Q5312 2SD2375/QP
R5342 16k
R5341 10k
C5307 100 /10
D5310 1SS133
R5358 330
C5313 100 /10
D5312 1SS133
R5331 33k
Q5310 2SD1819A/RS
R5324 560
R5325 10k
C5311 47 /10
R5323 OPEN
Q5301 DTA114EUA
D5315 MTZJ3.3B
IC5307 PQ15RW21
IN OUT GND REF
R5326 2.7k
C5310 100 /10
R5327 12k
D5311 1SS133
B5306 OPEN
B5310 0Ω
B5309 SHORT
B5305 OPEN
B5307 OPEN
D5306 OPEN
B5304 SHORT
TO DISPLAY CN7002 (Page 4-32) CN5301
1 DC(+)
2 -28V
3 DC(-)
4 GND
5 RCU5V
CN5308
1 FAN8V
2 GND(M) OPEN
TO MAIN(SYSCON) CN3604 (Page 4-13) CN5304
1 P.CTL(H)
2 GND
3 AL5.8V
4 GND(M)
5 17V
6 48V
7 6V
8 GND
9 AUDIO(-)
10 BT2
11 P.SAVE(L)
12 NC
TO PRE REC CN5302
1 SW5V
2 GND
3 SW12V OPEN
TO MAIN(SYSCON) CN3601 (Page 4-13) CN5303
1 DRUM12V
2 M12V
3 SW12V
4 GND
5 SW5V
TO DIGITAL(AUDIO ASIC) CN9601 (Page 4-49) CN5306
1 GND(A)
2 GND(A)
3 AL5V
TO DIGITAL(AUDIO ASIC) CN9602 (Page 4-49) CN5307
1 SW12V
2 GND(A)
3 SW5V
4 AUDIO(-)
TO DIGITAL(AUDIO ASIC) CN9603 (Page 4-49) CN5305
1 SW2.2V
2 SW3.3V
3 SW3.3V
4 GND
5 GND
6 AL3.3V
1
2
3
4
5
A
B
C
D
4.5
4.6
E
F
G
H

4.3 VIDEO/N.AUDIO SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

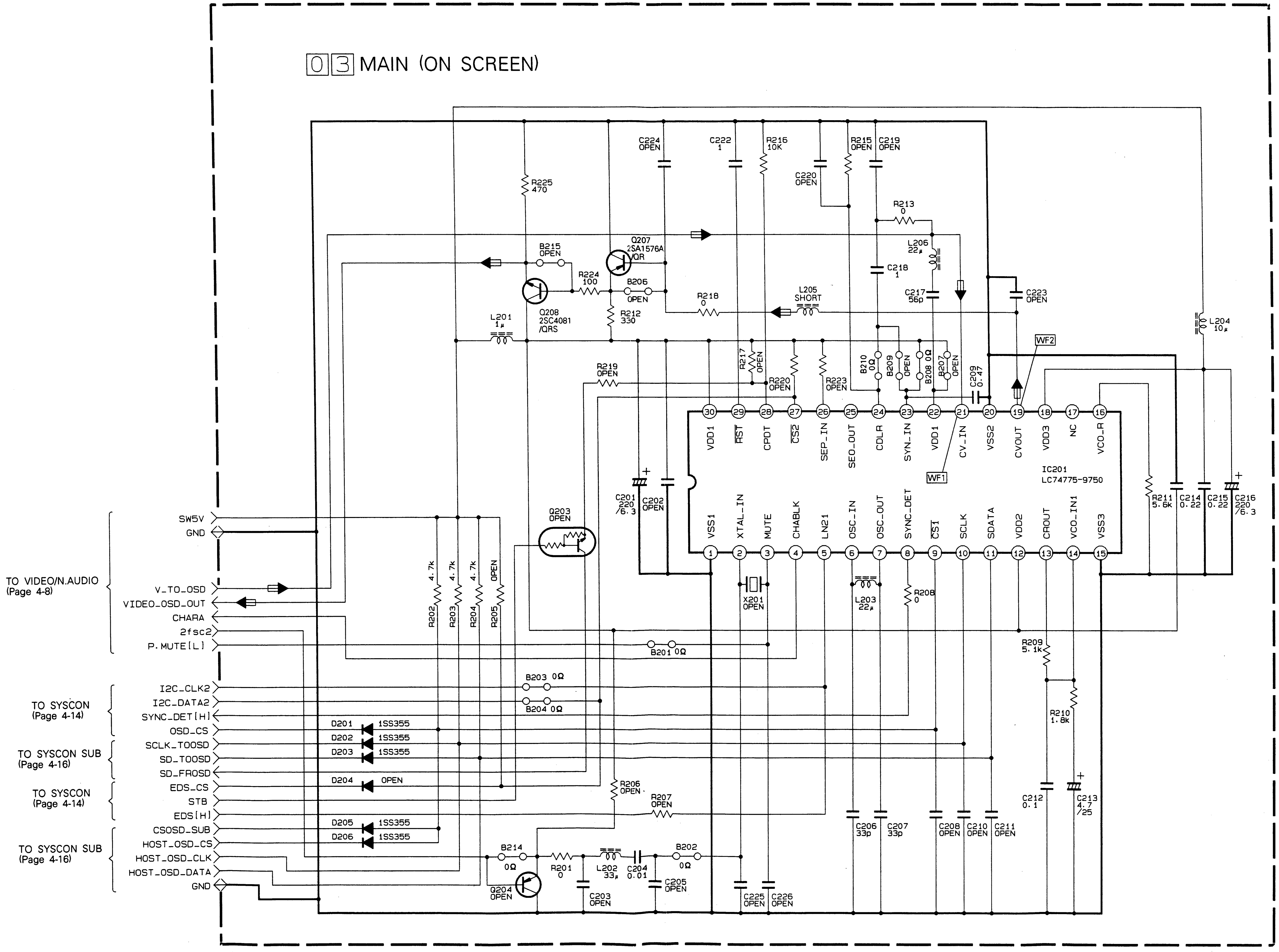


03 MAIN[VIDEO/N. AUDIO]
5
4
3
2
1
A
B
C
D
E
F
G
H
TO SYSCON
TO TERMINAL(MAIN)
TO P-S_CONV
OPEN
TO TUNER
TO U.DRUM
TO SYSCON SUB
TO A/C HEAD
TO F.E HEAD
TO FMA
TO 3D SVHS(VIDEO)
TO ON SCREEN
TO BS TUNER
TO GR
TO PRE/REC/PB-PRE/REC
NC

NOTE : For VIDEO/N.AUDIO waveforms, please refer to page 4-55.

4.4 ON SCREEN SCHEMATIC DIAGRAM

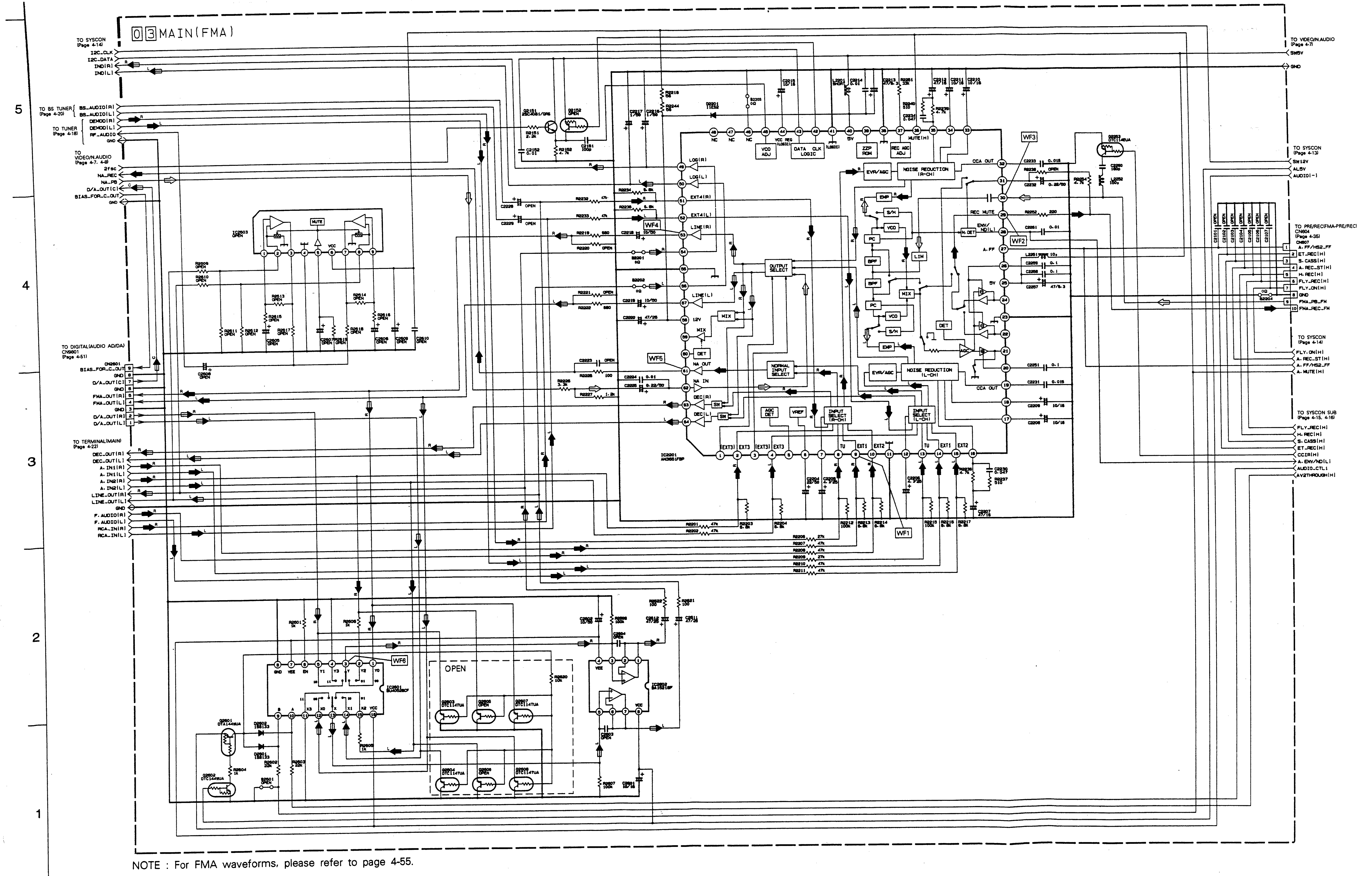
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


03 MAIN (ON SCREEN)
TO VIDEO/N.AUDIO (Page 4-8)
SW5V
GND
V_TO_OSD
VIDEO_OSD_OUT
CHARA
2fsc2
P.MUTE[L]
TO SYSCON (Page 4-14)
I2C_CLK2
I2C_DATA2
SYNC_DET[H]
OSD_CS
TO SYSCON SUB (Page 4-16)
SCLK_TOOSD
SD_TOOSD
SD_FROSD
TO SYSCON (Page 4-14)
EDS_CS
STB
EDS[H]
TO SYSCON SUB (Page 4-16)
CSOSD_SUB
HOST_OSD_CS
HOST_OSD_CLK
HOST_OSD_DATA
GND
IC201 LC74775-9750
VSS1 XTAL_IN MUTE CHABLK LN21 OSC_IN OSC_OUT SYNC_DET CS1 SCLK SDATA VDD2 CROUT VCO_IN1 VSS3
VDD1 RST CPDT CS2 SEP_IN SEO_OUT CDLR SYN_IN VDD1 CV_IN VSS2 CVOUT VDD3 NC VCO_R
Q207 2SA1576A /QR
Q208 2SC4081 /QRS
Q203 OPEN
Q204 OPEN
D201 1SS355
D202 1SS355
D203 1SS355
D204 OPEN
D205 1SS355
D206 1SS355
R201 0
R202 4.7k
R203 4.7k
R204 4.7k
R205 OPEN
R206 OPEN
R207 OPEN
R208 0
R209 5.1k
R210 1.8k
R211 5.6k
R212 330
R213 0
R215 OPEN
R216 10K
R217 OPEN
R218 0
R219 OPEN
R220 OPEN
R223 OPEN
R224 100
R225 470
C201 220 /6.3
C202 OPEN
C203 OPEN
C204 0.01
C205 OPEN
C206 33p
C207 33p
C208 OPEN
C209 0.47
C210 OPEN
C211 OPEN
C212 0.1
C213 4.7 /25
C214 0.22
C215 0.22
C216 220 /6.3
C217 56p
C218 1
C219 OPEN
C220 OPEN
C222 1
C223 OPEN
C224 OPEN
C225 OPEN
C226 OPEN
L201 1μ
L202 33μ
L203 22μ
L204 10μ
L205 SHORT
L206 22μ
X201 OPEN
B201 0Ω
B202 0Ω
B203 0Ω
B204 0Ω
B206 OPEN
B207 OPEN
B208 0Ω
B209 OPEN
B210 0Ω
B214 0Ω
B215 OPEN
WF1
WF2

NOTE : For ON SCREEN waveforms, please refer to page 4-55.

4.5 FMA SCHEMATIC DIAGRAM

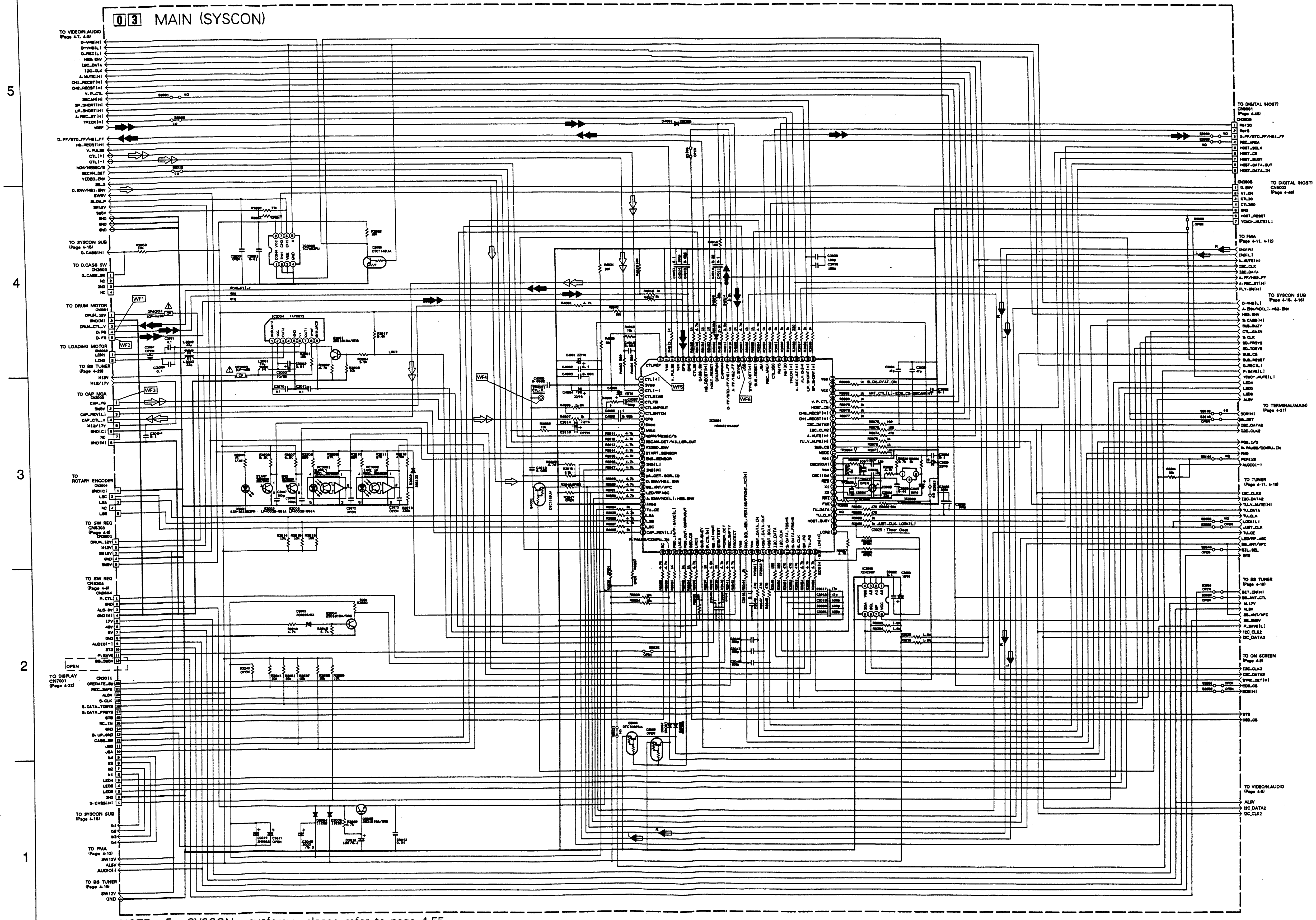
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


03 MAIN(FMA)
5
4
3
2
1
TO SYSCON (Page 4-14)
I2C_CLK
I2C_DATA
IND(R)
IND(L)
TO BS TUNER (Page 4-20)
BS_AUDIO(R)
BS_AUDIO(L)
TO TUNER (Page 4-18)
DEMOD(R)
DEMOD(L)
RF_AUDIO
GND
TO VIDEO/N.AUDIO (Page 4-7, 4-8)
2fsc
NA_REC
NA_PB
D/A_OUT(C)
BIAS_FOR_C_OUT
GND
TO DIGITAL(AUDIO AD/DA) CN9801 (Page 4-51)
CN2601
BIAS_FOR_C_OUT
GND
D/A_OUT(C)
GND
FMA_OUT(R)
FMA_OUT(L)
GND
D/A_OUT(R)
D/A_OUT(L)
TO TERMINAL(MAIN) (Page 4-22)
DEC_OUT(R)
DEC_OUT(L)
A. IN1(R)
A. IN1(L)
A. IN2(R)
A. IN2(L)
LINE_OUT(R)
LINE_OUT(L)
GND
F. AUDIO(R)
F. AUDIO(L)
RCA_IN(R)
RCA_IN(L)
TO VIDEO/N.AUDIO (Page 4-7)
SW5V
GND
TO SYSCON (Page 4-13)
SW12V
AL5V
AUDIO(-)
TO PRE/REC(FMA-PRE/REC) CN604 (Page 4-35)
CN607
A. FF/HS2_FF
ET_REC(H)
S. CASS(H)
A. REC_ST(H)
H. REC(H)
FLY_REC(H)
FLY_ON(H)
GND
FMA_PB_FM
FMA_REC_FM
TO SYSCON (Page 4-14)
FLY. ON(H)
A. REC_ST(H)
A. FF/HS2_FF
A. MUTE(H)
TO SYSCON SUB (Page 4-15, 4-16)
FLY_REC(H)
H. REC(H)
S. CASS(H)
ET_REC(H)
CCIR(H)
A. ENV/ND(L)
AUDIO_CTL1
AV2THROUGH(H)
IC2301 AN3651FBP
IC2603 OPEN
IC2601 BU4053BCF
IC2602 BA15218F
OPEN
MUTE
VCC
VCO ADJ
DATA CLK LOGIC
ZZP ROM
REC AGC ADJ
EVR/AGC
NOISE REDUCTION (R-CH)
NOISE REDUCTION (L-CH)
CCA OUT
REC MUTE
ENV/ND(L)
N.DET
A.FF
EMP
S/H
VCO
PC
BPF
LIM
MIX
DET
AGC
OUTPUT SELECT
NORMAL INPUT SELECT
INPUT SELECT (R-CH)
INPUT SELECT (L-CH)
AGC DET
VREF
LOG(R)
LOG(L)
EXT4(R)
EXT4(L)
LINE(R)
LINE(L)
NA OUT
NA IN
DEC(R)
DEC(L)
SW
12V
5V
EXT3
EXT1
EXT2
TU
WF1
WF2
WF3
WF4
WF5
WF6
Q2151 2SC4081/QRS
Q2152 OPEN
Q2153 DTC114EUA
Q2601 DTA144EUA
Q2602 DTC144EUA
Q2603 DTC114TUA
Q2604 DTC114TUA
Q2605 OPEN
Q2606 OPEN
Q2607 DTC114TUA
Q2608 DTC114TUA
D2201 1SS133
D2602 1SS133
D2601 1SS133

NOTE : For FMA waveforms, please refer to page 4-55.

4.6 SYSCON SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

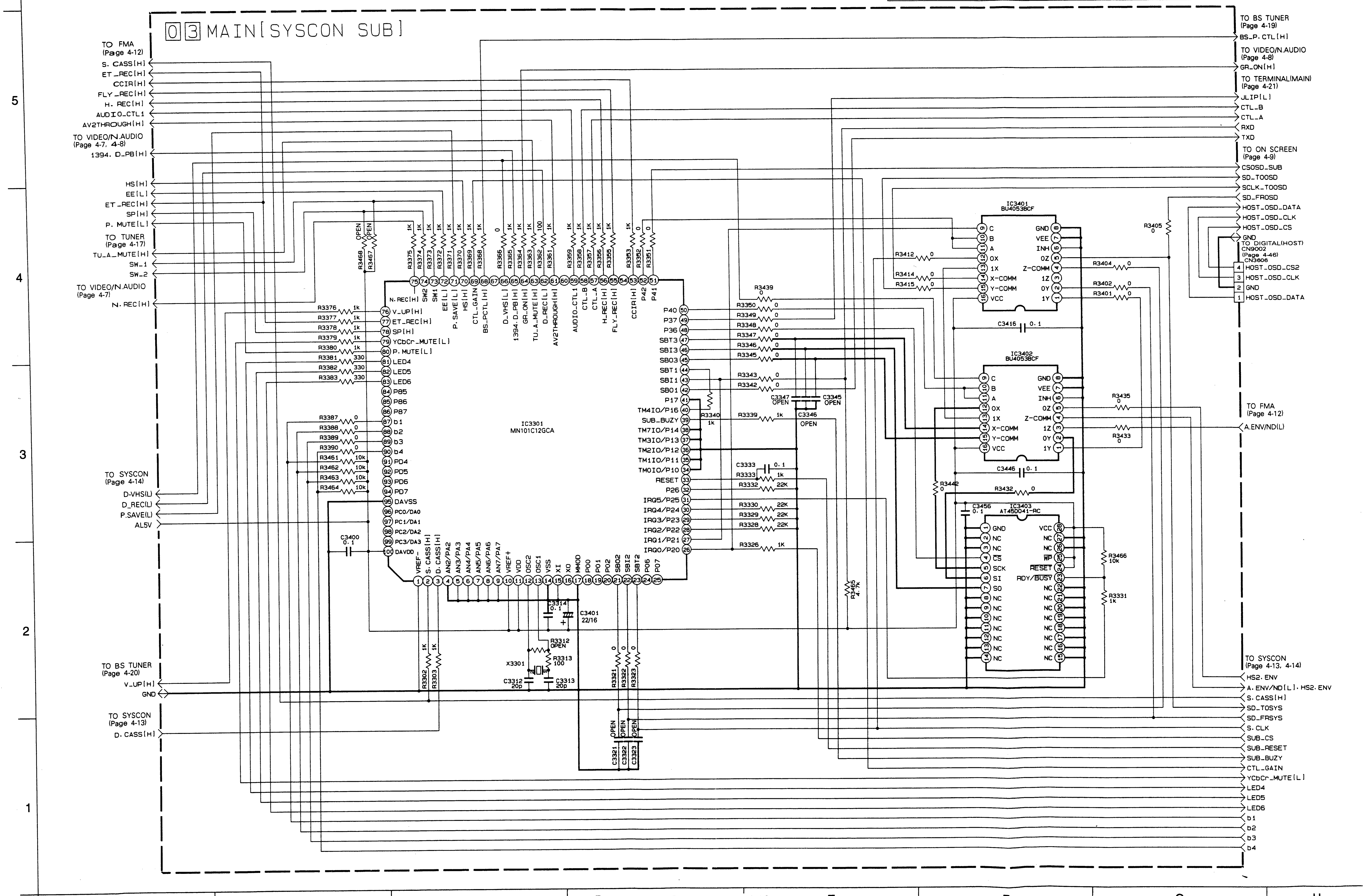


03 MAIN (SYSCON)
5
4
3
2
1
TO VIDEO/N.AUDIO
TO DIGITAL (HOST)
TO SYSCON SUB
TO D.CASS SW
TO DRUM MOTOR
TO LOADING MOTOR
TO BS TUNER
TO CAP MDA
TO ROTARY ENCODER
TO SW REG
TO DISPLAY
TO FMA
TO TERMINAL(MAIN)
TO TUNER
TO ON SCREEN
WF1
WF2
WF3
WF4
WF5
WF6
OPEN

NOTE : For SYSCON waveforms, please refer to page 4-55.

4.7 SYSCON SUB SCHEMATIC DIAGRAM

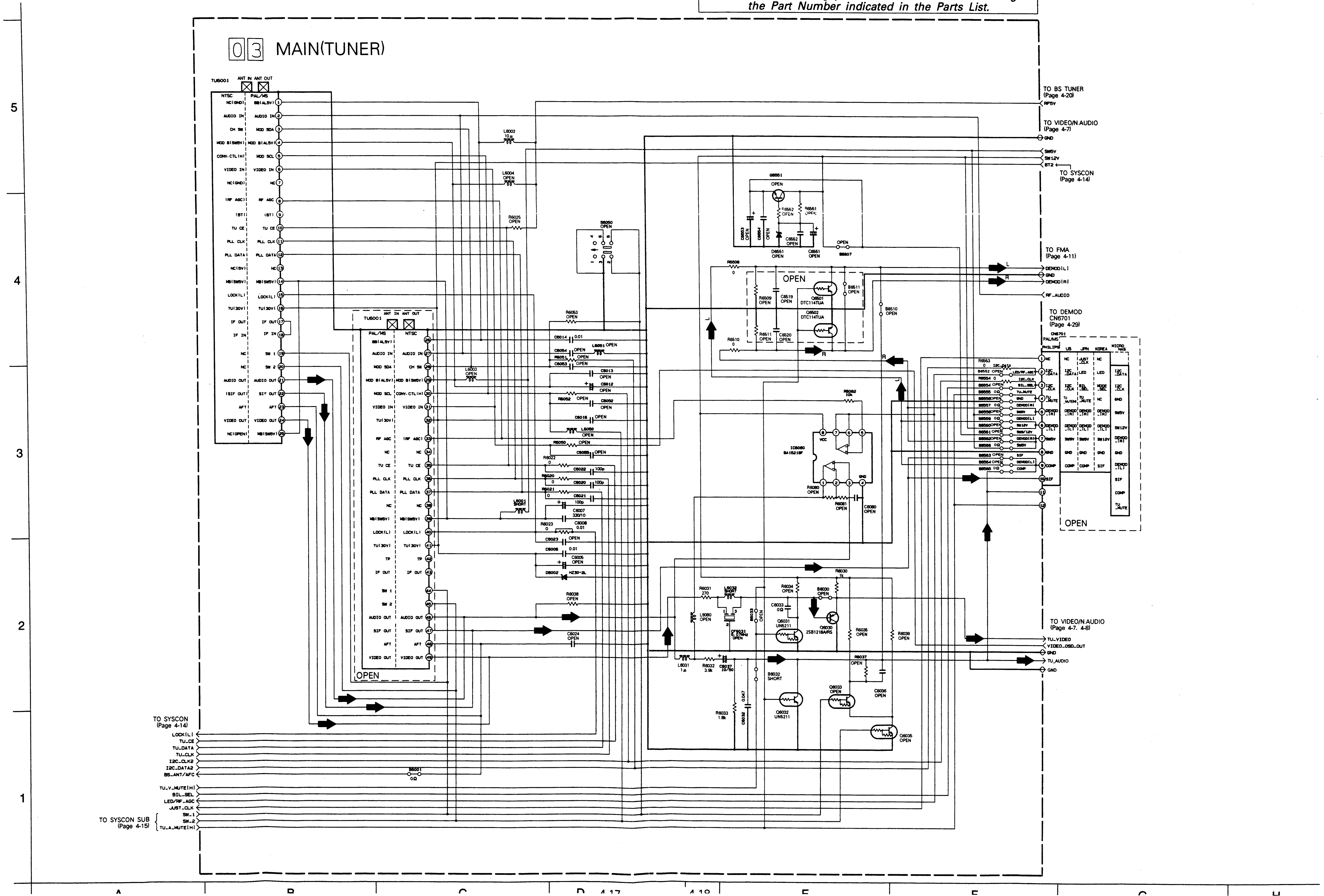
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



03 MAIN[SYSCON SUB]
TO FMA (Page 4-12)
S. CASS[H]
ET_REC[H]
CCIR[H]
FLY_REC[H]
H. REC[H]
AUDIO_CTL1
AV2THROUGH[H]
TO VIDEO/N.AUDIO (Page 4-7, 4-8)
1394. D_PB[H]
HS[H]
EE[L]
ET_REC[H]
SP[H]
P. MUTE[L]
TO TUNER (Page 4-17)
TU_A_MUTE[H]
SW_1
SW_2
TO VIDEO/N.AUDIO (Page 4-7)
N. REC[H]
TO SYSCON (Page 4-14)
D-VHS(L)
D_REC(L)
P.SAVE(L)
AL5V
TO BS TUNER (Page 4-20)
V_UP[H]
GND
TO SYSCON (Page 4-13)
D. CASS[H]
IC3301
MN101C12GCA
IC3401
BU4053BCF
IC3402
BU4053BCF
IC3403
AT45D041-RC
X3301
TO BS TUNER (Page 4-19)
BS_P. CTL[H]
TO VIDEO/N.AUDIO (Page 4-8)
GR_ON[H]
TO TERMINAL(MAIN) (Page 4-21)
JLIP[L]
CTL_B
CTL_A
RXD
TXD
TO ON SCREEN (Page 4-9)
CSOSD_SUB
SD_TOOSD
SCLK_TOOSD
SD_FROSD
HOST_OSD_DATA
HOST_OSD_CLK
HOST_OSD_CS
GND
TO DIGITAL(HOST) CN9002 (Page 4-46) CN3606
4 HOST_OSD_CS2
3 HOST_OSD_CLK
2 GND
1 HOST_OSD_DATA
TO FMA (Page 4-12)
A.ENV/ND(L)
TO SYSCON (Page 4-13, 4-14)
HS2. ENV
A. ENV/ND[L]. HS2. ENV
S. CASS[H]
SD_TOSYS
SD_FRSYS
S. CLK
SUB_CS
SUB_RESET
SUB_BUZY
CTL_GAIN
YCbCr_MUTE[L]
LED4
LED5
LED6
b1
b2
b3
b4
5
4
3
2
1
A
B
C
D
E
F
G
H

4.8 TUNER SCHEMATIC DIAGRAM

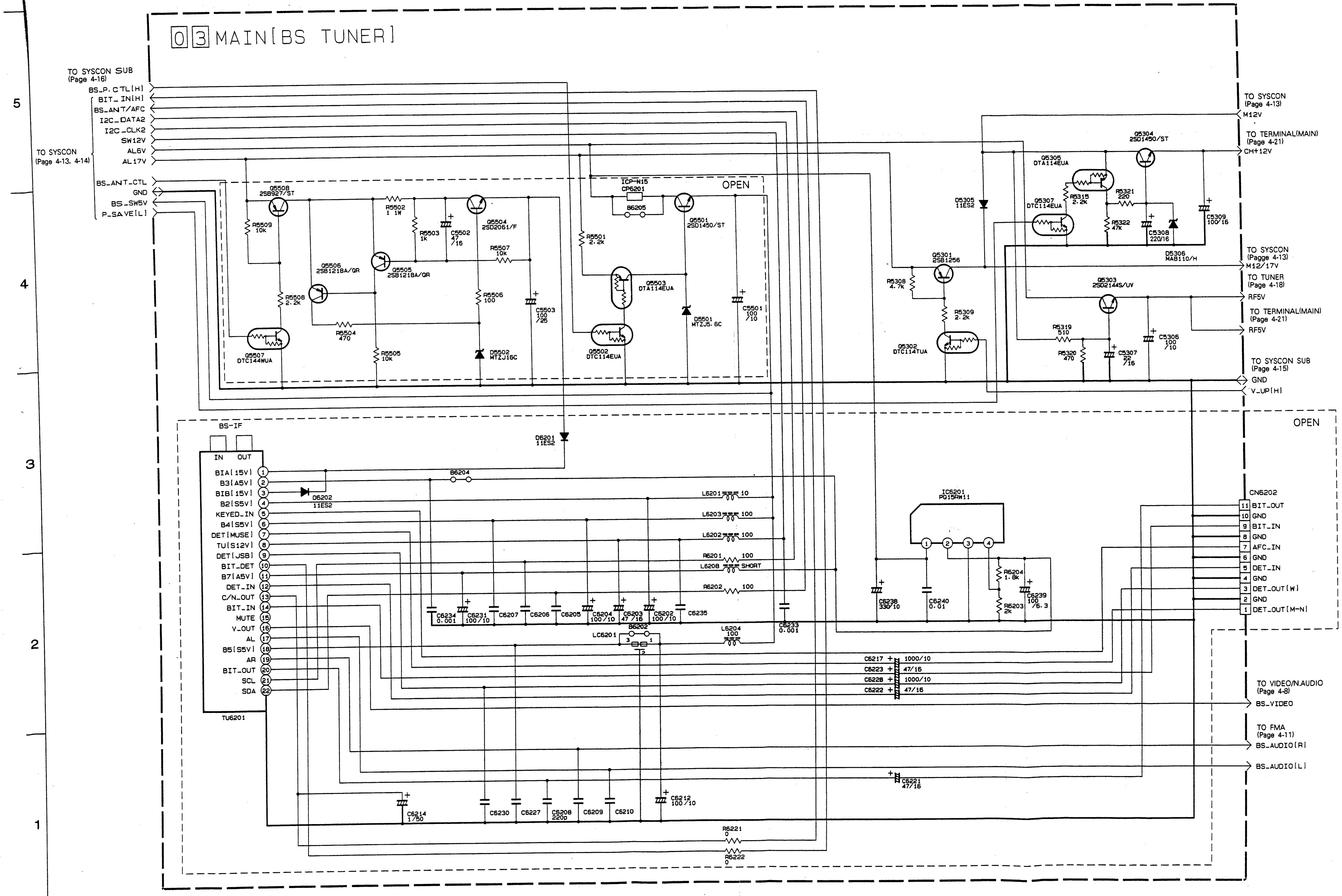
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



5
4
3
2
1
03 MAIN(TUNER)
TU6001
ANT IN
ANT OUT
NTSC
PAL/MS
NC(GND) | BB(AL5V) 1
AUDIO IN | AUDIO IN 2
CH SW | MOD SDA 3
MOD B(SW5V) | MOD B(AL5V) 4
CONV.CTL(H) | MOD SCL 5
VIDEO IN | VIDEO IN 6
NC(GND) | NC 7
(RF AGC) | RF AGC 8
(BT) | (BT) 9
TU CE | TU CE 10
PLL CLK | PLL CLK 11
PLL DATA | PLL DATA 12
NC(5V) | NC 13
MB(SW5V) | MB(SW5V) 14
LOCK(L) | LOCK(L) 15
TU(30V) | TU(30V) 16
IF OUT | IF OUT 17
IF IN | IF IN 18
NC | SW 1 19
NC | SW 2 20
AUDIO OUT | AUDIO OUT 21
(SIF OUT) | SIF OUT 22
AFT | AFT 23
VIDEO OUT | VIDEO OUT 24
NC(OPEN) | MB(SW5V) 25
TU6001
ANT IN
ANT OUT
PAL/MS
NTSC
BB(AL5V) 26
AUDIO IN | AUDIO IN 27
MOD SDA | CH SW 28
MOD B(AL5V) | MOD B(SW5V) 29
MOD SCL | CONV.CTL(H) 30
VIDEO IN | VIDEO IN 31
TU(30V) 32
RF AGC | (RF AGC) 33
NC | NC 34
TU CE | TU CE 35
PLL CLK | PLL CLK 36
PLL DATA | PLL DATA 37
NC | NC 38
MB(SW5V) | MB(SW5V) 39
LOCK(L) | LOCK(L) 40
TU(30V) | TU(30V) 41
TP | TP 42
IF OUT | IF OUT 43
SW 1 44
SW 2 45
AUDIO OUT | AUDIO OUT 46
SIF OUT | SIF OUT 47
AFT | AFT 48
VIDEO OUT | VIDEO OUT 49
OPEN
L6002 10μ
L6004 OPEN
R6025 OPEN
L6003 OPEN
L6001 SHORT
B6050 OPEN
R6053 OPEN
C6014 0.01
L6051 OPEN
C6054 OPEN
R6051 OPEN
C6053 OPEN
C6013 OPEN
C6012 OPEN
R6052 OPEN
C6052 OPEN
C6015 OPEN
L6050 OPEN
R6050 OPEN
C6055 OPEN
R6022 0
C6022 100p
R6020 0
C6020 100p
R6021 0
C6021 100p
C6007 330/10
R6023 0
C6008 0.01
C6023 OPEN
C6006 0.01
C6005 OPEN
D6002 HZ30-2L
R6038 OPEN
C6024 OPEN
B6001 0Ω
Q6551 OPEN
C6553 OPEN
C6554 OPEN
R6552 OPEN
R6551 OPEN
D6551 OPEN
C6552 OPEN
C6551 OPEN
B6507 OPEN
R6508 0
OPEN
R6509 OPEN
C6519 OPEN
Q6501 DTC114TUA
B6511 OPEN
Q6502 DTC114TUA
R6511 OPEN
C6520 OPEN
R6510 0
B6510 OPEN
L
R
R6082 10k
IC6080 BA15218F
VCC
GND
R6080 OPEN
R6081 OPEN
C6080 OPEN
R6030 1k
R6031 270
L6032 SHORT
R6034 OPEN
B6030 OPEN
C6033 0Ω
L6030 OPEN
CF6031 6.0MHz OPEN
B6033 OPEN
Q6031 UN5211
Q6030 2SB1218A/RS
R6035 OPEN
R6039 OPEN
L6031 1μ
R6032 3.9k
C6037 10/50
R6037 OPEN
B6032 SHORT
C6036 OPEN
R6033 1.8k
C6032 0.047
Q6032 UN5211
Q6033 OPEN
Q6035 OPEN
R6563 0
I2C_DATA
B6552 OPEN
B6554 0
I2C_CLK
B6564 OPEN
B6555 0Ω
B6556 OPEN
B6557 0Ω
B6558 OPEN
B6559 0Ω
B6560 OPEN
B6561 OPEN
B6562 OPEN
B6566 0Ω
B6563 OPEN
B6564 OPEN
B6565 0Ω
LED/RF_AGC
BIL_SEL
TU_MUTE
GND
DEMOD(R)
SW5V
DEMOD(L)
SW12V
SW5/12V
DEMOD(R)
SW5V
SIF
DEMOD(L)
COMP
TO BS TUNER
(Page 4-20)
RF5V
TO VIDEO/N.AUDIO
(Page 4-7)
GND
SW5V
SW12V
BT2
TO SYSCON
(Page 4-14)
TO FMA
(Page 4-11)
DEMOD(L)
GND
DEMOD(R)
RF_AUDIO
TO DEMOD
CN6701
(Page 4-29)
CN6701
PAL/MS
PHILIPS
US
JPN
KOREA
MICRO NAS
1 NC | NC | JUST_CLK | NC
2 I2C_DATA | I2C_DATA | LED | LED | I2C_DATA
3 I2C_CLK | I2C_CLK | BIL_SEL | MODE_SEL | I2C_CLK
4 TU_MUTE | TU_MUTE(H) | TU_MUTE | NC | GND
5 DEMOD_(R) | DEMOD_(R) | DEMOD_(R) | DEMOD_(R) | SW5V
6 DEMOD_(L) | DEMOD_(L) | DEMOD_(L) | DEMOD_(L) | SW12V
7 SW5V | SW5V | SW5V | SW12V | DEMOD_(R)
8 GND | GND | GND | GND | GND
9 COMP | COMP | COMP | SIF | DEMOD_(L)
10 SIF | SIF
11 | COMP
12 | TU_MUTE
OPEN
TO VIDEO/N.AUDIO
(Page 4-7, 4-8)
TU_VIDEO
VIDEO_OSD_OUT
GND
TU_AUDIO
GND
TO SYSCON
(Page 4-14)
LOCK(L)
TU_CE
TU_DATA
TU_CLK
I2C_CLK2
I2C_DATA2
BS_ANT/AFC
TU_V_MUTE(H)
BIL_SEL
LED/RF_AGC
JUST_CLK
TO SYSCON SUB
(Page 4-15)
SW_1
SW_2
TU_A_MUTE(H)

4.9 BS TUNER SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



03 MAIN[BS TUNER]
TO SYSCON SUB (Page 4-16)
BS_P.CTL[H]
BIT_IN[H]
BS_ANT/AFC
I2C_DATA2
I2C_CLK2
SW12V
AL6V
AL17V
TO SYSCON (Page 4-13, 4-14)
BS_ANT_CTL
GND
BS_SW5V
P_SAVE[L]
Q5508 2SB927/ST
R5509 10k
R5502 1 1W
R5503 1k
C5502 47/16
Q5504 2SD2061/F
R5507 10k
Q5506 2SB1218A/QR
Q5505 2SB1218A/QR
R5508 2.2k
R5506 100
C5503 100/25
R5504 470
R5505 10k
D5502 MTZJ16C
Q5507 DTC144WUA
ICP-N15 CP6201
B6205
OPEN
R5501 2.2k
Q5501 2SD1450/ST
Q5503 DTA114EUA
D5501 MTZJ5.6C
C5501 100/10
Q5502 DTC114EUA
TO SYSCON (Page 4-13)
M12V
TO TERMINAL(MAIN) (Page 4-21)
CH+12V
Q5304 2SD1450/ST
Q5305 DTA114EUA
Q5307 DTC114EUA
R5315 2.2k
R5321 220
D5305 11ES2
R5322 47k
C5308 220/16
C5309 100/16
D5306 MA8110/H
TO SYSCON (Pagge 4-13)
M12/17V
Q5301 2SB1256
R5308 4.7k
Q5303 2SD2144S/UV
TO TUNER (Page 4-18)
RF5V
R5309 2.2k
TO TERMINAL(MAIN) (Page 4-21)
RF5V
Q5302 DTC114TUA
R5319 510
R5320 470
C5307 22/16
C5306 100/10
TO SYSCON SUB (Page 4-15)
GND
V_UP[H]
BS-IF
IN
OUT
D6201 11ES2
BIA[15V] 1
B3[A5V] 2
BIB[15V] 3
B2[S5V] 4
KEYED_IN 5
B4[S5V] 6
DET[MUSE] 7
TU[S12V] 8
DET[JSB] 9
BIT_DET 10
B7[A5V] 11
DET_IN 12
C/N_OUT 13
BIT_IN 14
MUTE 15
V_OUT 16
AL 17
B5[S5V] 18
AR 19
BIT_OUT 20
SCL 21
SDA 22
TU6201
B6204
D6202 11ES2
L6201 10
L6203 100
L6202 100
R6201 100
L6208 SHORT
R6202 100
C6234 0.001
C6231 100/10
C6207
C6206
C6205
C6204 100/10
C6203 47/16
C6202 100/10
C6235
B6202
LC6201
L6204 100
C6233 0.001
IC6201 PQ15RW11
1 2 3 4
C6238 330/10
C6240 0.01
R6204 1.8k
C6239 100/6.3
R6203 2k
OPEN
CN6202
11 BIT_OUT
10 GND
9 BIT_IN
8 GND
7 AFC_IN
6 GND
5 DET_IN
4 GND
3 DET_OUT[W]
2 GND
1 DET_OUT[M-N]
C6217 1000/10
C6223 47/16
C6228 1000/10
C6222 47/16
TO VIDEO/N.AUDIO (Page 4-8)
BS_VIDEO
TO FMA (Page 4-11)
BS_AUDIO[R]
BS_AUDIO[L]
C6221 47/16
C6214 1/50
C6230
C6227
C6208 220p
C6209
C6210
C6212 100/10
R6221 0
R6222 0

5

4

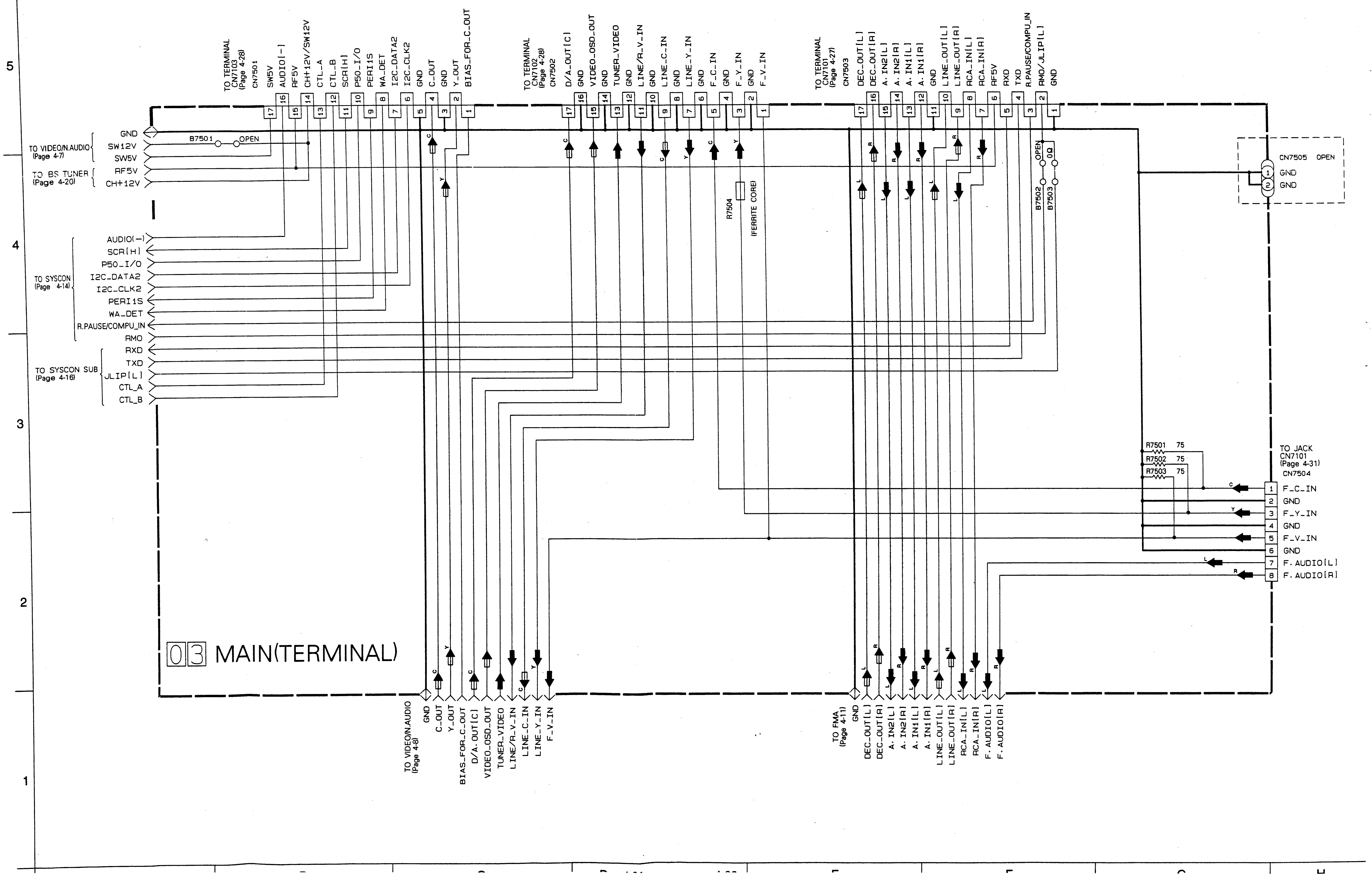
3

2

1

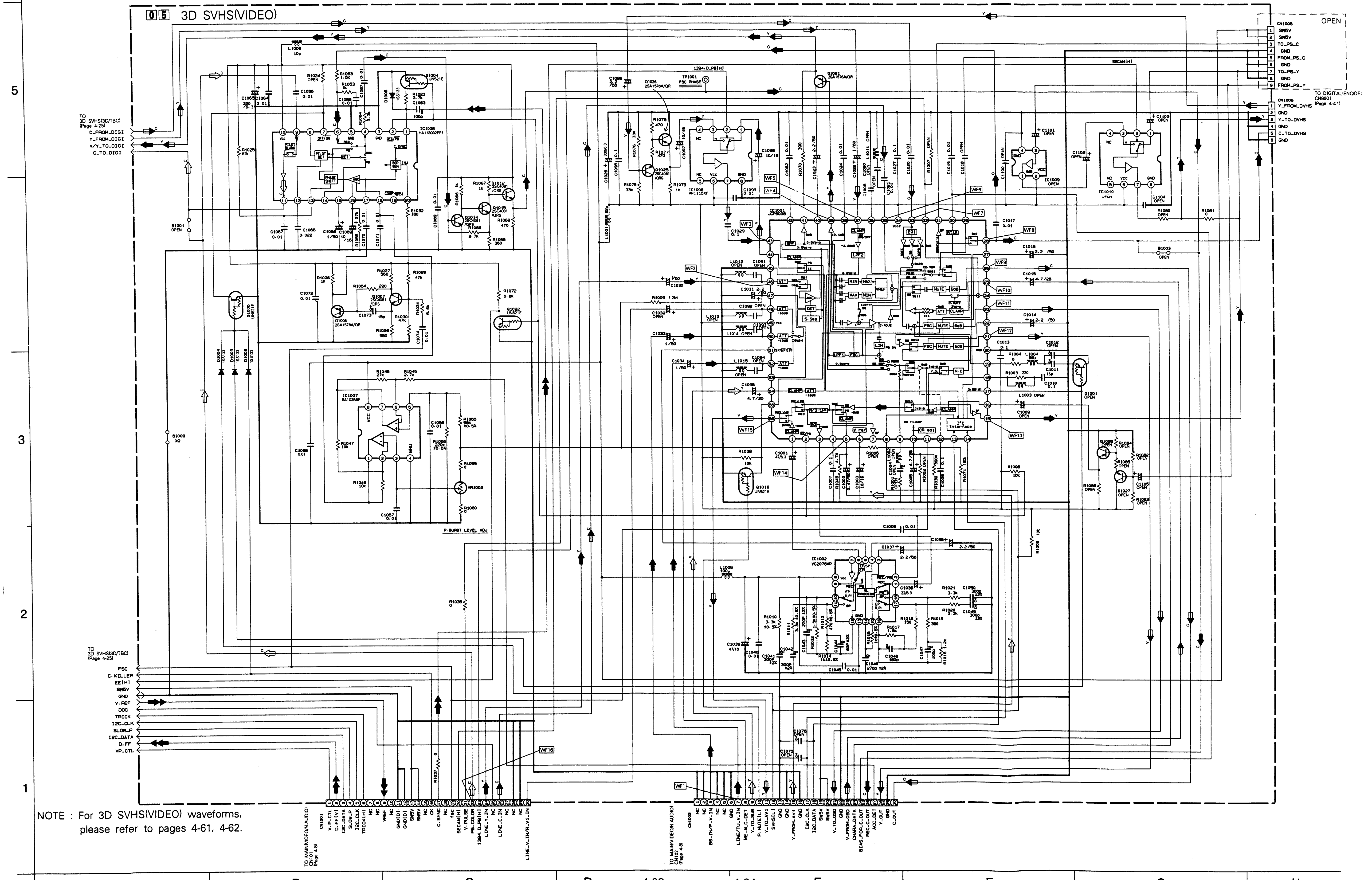
4.10 TERMINAL(MAIN) SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


5
4
3
2
1
TO TERMINAL CN7103 (Page 4-28) CN7501
SW5V
AUDIO[-]
RF5V
CH+12V/SW12V
CTL_A
CTL_B
SCR[H]
P50_I/O
PERI1S
WA_DET
I2C_DATA2
I2C_CLK2
GND
C_OUT
GND
Y_OUT
BIAS_FOR_C_OUT
TO TERMINAL CN7102 (Page 4-28) CN7502
D/A_OUT[C]
GND
VIDEO_OSD_OUT
GND
TUNER_VIDEO
GND
LINE/R_V_IN
GND
LINE_C_IN
GND
LINE_Y_IN
GND
F_C_IN
GND
F_Y_IN
GND
F_V_IN
TO TERMINAL CN7101 (Page 4-27) CN7503
DEC_OUT[L]
DEC_OUT[R]
A.IN2[L]
A.IN2[R]
A.IN1[L]
A.IN1[R]
GND
LINE_OUT[L]
LINE_OUT[R]
RCA_IN[L]
RCA_IN[R]
RF5V
RXD
TXD
R.PAUSE/COMPU_IN
RMO/JLIP[L]
GND
TO VIDEO/N.AUDIO (Page 4-7)
GND
SW12V
SW5V
TO BS TUNER (Page 4-20)
RF5V
CH+12V
B7501 OPEN
TO SYSCON (Page 4-14)
AUDIO(-)
SCR[H]
P50_I/O
I2C_DATA2
I2C_CLK2
PERI1S
WA_DET
R.PAUSE/COMPU_IN
RMO
TO SYSCON SUB (Page 4-16)
RXD
TXD
JLIP[L]
CTL_A
CTL_B
R7504 (FERRITE CORE)
OPEN
0Ω
B7502
B7503
CN7505 OPEN
1 GND
2 GND
R7501 75
R7502 75
R7503 75
TO JACK CN7101 (Page 4-31) CN7504
1 F_C_IN
2 GND
3 F_Y_IN
4 GND
5 F_V_IN
6 GND
7 F.AUDIO[L]
8 F.AUDIO[R]
03 MAIN(TERMINAL)
TO VIDEO/N.AUDIO (Page 4-8)
GND
C_OUT
Y_OUT
BIAS_FOR_C_OUT
D/A_OUT[C]
VIDEO_OSD_OUT
TUNER_VIDEO
LINE/R_V_IN
LINE_C_IN
LINE_Y_IN
F_V_IN
TO FMA (Page 4-11)
GND
DEC_OUT[L]
DEC_OUT[R]
A.IN2[L]
A.IN2[R]
A.IN1[L]
A.IN1[R]
LINE_OUT[L]
LINE_OUT[R]
RCA_IN[L]
RCA_IN[R]
F.AUDIO[L]
F.AUDIO[R]

4.11 3D SVHS(VIDEO) SCHEMATIC DIAGRAM

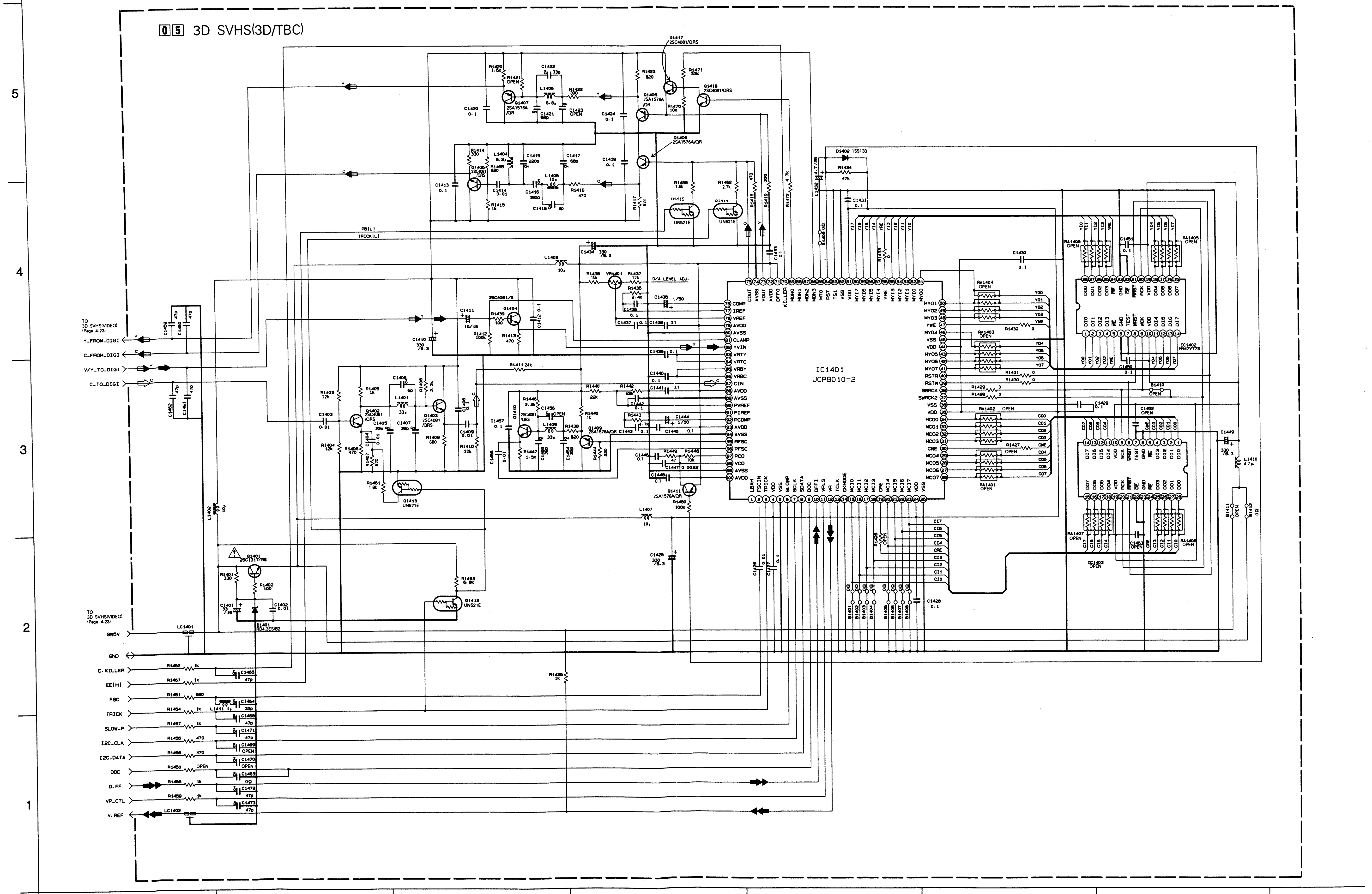
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


05 3D SVHS(VIDEO)
TO 3D SVHS(3D/TBC) (Page 4-25)
C_FROM_DIGI
Y_FROM_DIGI
V/Y_TO_DIGI
C_TO_DIGI
TO 3D SVHS(3D/TBC) (Page 4-25)
FSC
C.KILLER
EE(H)
SW5V
GND
V.REF
DOC
TRICK
I2C_CLK
SLOW_P
I2C_DATA
D.FF
VP_CTL
IC1006 HA118092FP1
IC1007 BA10358F
IC1001 JCP8008
IC1008 NJM2233BV
IC1009 OPEN
IC1010 OPEN
IC1002 YC2076NP
TP1001 FSC PHASE
P.BURST LEVEL ADJ
VR1002
1394.D_PB(H)
SECAM(H)
CN1005
OPEN
1 SW5V
2 SW5V
3 TO_PS_C
4 GND
5 FROM_PS_C
6 GND
7 TO_PS_Y
8 GND
9 FROM_PS_Y
TO DIGITAL(ENC/DEC) CN8601 (Page 4-41)
CN1006
1 Y_FROM_DVHS
2 GND
3 Y_TO_DVHS
4 GND
5 C_TO_DVHS
6 GND
TO MAIN(VIDEO/N.AUDIO) CN101 (Page 4-8)
CN1001
1 V.P_CTL
2 D.FF(V)
3 I2C_DATA
4 SLOW_P
5 I2C_CLK
6 TRICK(H)
7 NC
8 NC
9 VREF
10 NC
11 GND(D)
12 GND(D)
13 SW5V
14 SW5V
15 NC
16 CK
17 C.SYNC
18 NC
19 fsc
20 SECAM(H)
21 V.PULSE
22 PB_COLOR
23 1394.D_PB(H)
24 LINE_Y_IN
25 NC
26 LINE_C_IN
27 NC
28 NC
29 NC
30 LINE_V_IN/R_V1_IN
TO MAIN(VIDEO/N.AUDIO) CN102 (Page 4-8)
CN1002
1 NC
2 NC
3 BS_IN/F_V_IN
4 NC
5 NC
6 GND
7 LINE/TU_V_IN
8 ME_ALC_DET
9 Y_TO_SUB
10 P.MUTE(L)
11 Y_TO_AV1
12 SVHS(L)
13 GND
14 GND
15 Y_FROM_AV1
16 GND
17 I2C_CLK
18 I2C_DATA
19 SW5V
20 SW5V
21 V_TO_OSD
22 GND
23 V_FROM_OSD
24 CHARA_DATA
25 BIAS_FOR_C_OUT
26 REC_C_OUT
27 ACC_DET
28 Y_OUT
29 GND
30 C_OUT
WF1
WF16
5
3
2
1
A
B
C
D
E
F
G
H

NOTE : For 3D SVHS(VIDEO) waveforms, please refer to pages 4-61, 4-62.

4.12 3D SVHS(3D/TBC) SCHEMATIC DIAGRAM

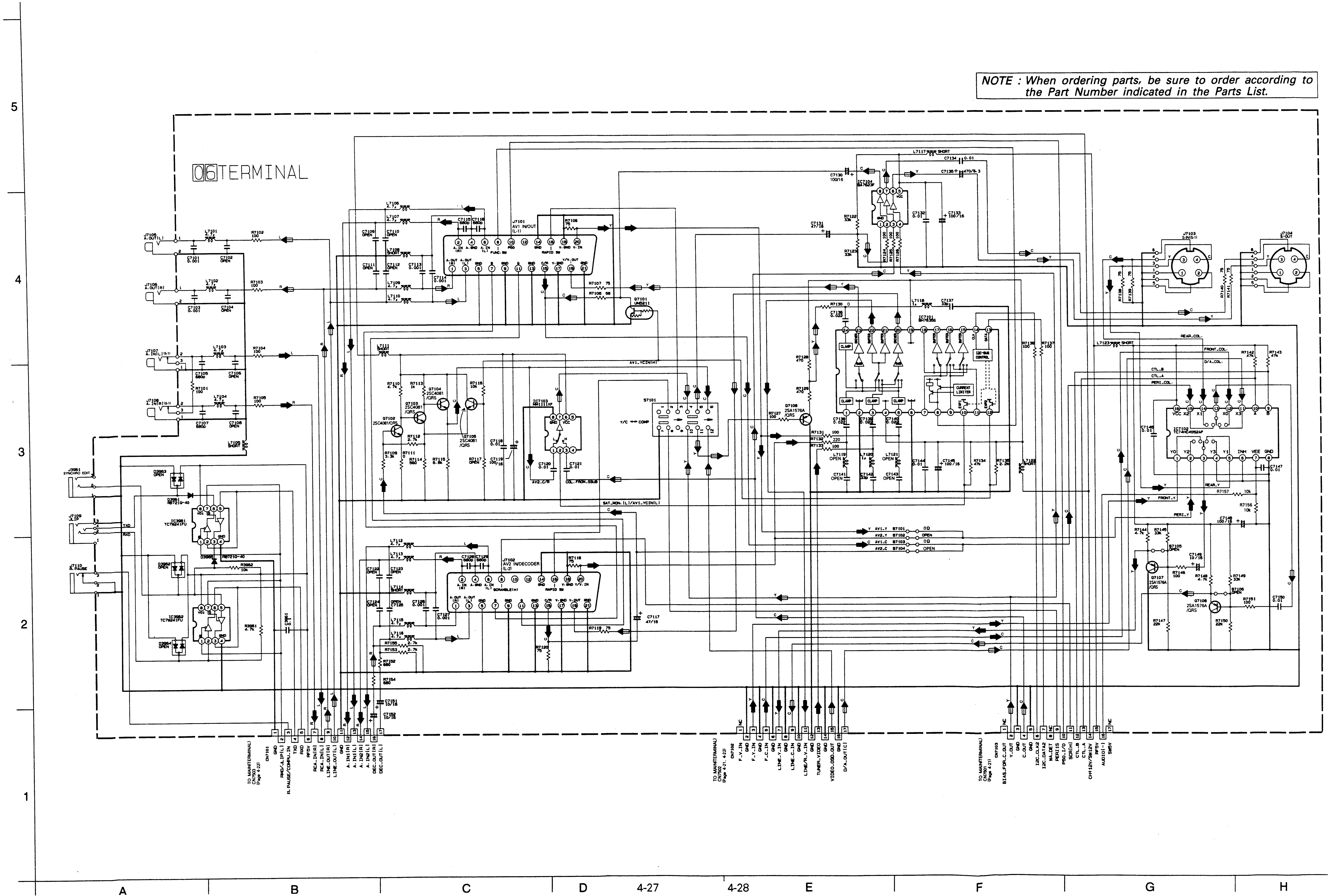
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



05 3D SVHS(3D/TBC)
5
4
3
2
1
A
B
C
D
E
F
G
H
TO 3D SVHS(VIDEO) (Page 4-23)
Y_FROM_DIGI
C_FROM_DIGI
V/Y_TO_DIGI
C_TO_DIGI
SW5V
GND
C.KILLER
EE(H)
FSC
TRICK
SLOW_P
I2C_CLK
I2C_DATA
DOC
D.FF
VP_CTL
V.REF
IC1401
JCP8010-2
IC1402
MN47V77S
IC1403
OPEN
Q1401 2SC1317/RS
D1401 RD4.3ES/B2
Q1402 2SC4081/QRS
Q1403 2SC4081/QRS
Q1404 2SC4081/S
Q1405 2SC4081/QRS
Q1406 2SA1576A/QR
Q1407 2SA1576A/QR
Q1408 2SA1576A/QR
Q1409 2SA1576A/QR
Q1411 2SA1576A/QR
Q1412 UN521E
Q1413 UN521E
Q1414 UN521E
Q1415 UN521E
Q1417 2SC4081/QRS
Q1418 2SC4081/QRS
D1402 1SS133
VR1401
D/A LEVEL ADJ.
PB(L)
TRICK(L)
LC1401
LC1402
RA1401
RA1402 OPEN
RA1403 OPEN
RA1404 OPEN
RA1405 OPEN
RA1406 OPEN
RA1407 OPEN
RA1408 OPEN
COMP
IREF
VREF
AVDD
AVSS
CLAMP
YVIN
VRTY
VRTC
VRBY
VRBC
CIN
PVREF
PIREF
PCOMP
RFSC
PFSC
PCO
VCO
MYO1
MYO2
MYO3
YWE
MYO4
VSS
VDD
MYO5
MYO6
MYO7
RSTR
RSTW
SWRCK
SWRCK2
MCO0
MCO1
MCO2
MCO3
CWE
MCO4
MCO5
MCO6
MCO7
COUT
DFFO
KILLER
LBKH
FSCIN
TRICK
SLOWP
SCLK
SDATA
DOC
DFFI
VPLS
VR
TCLK
CKMODE

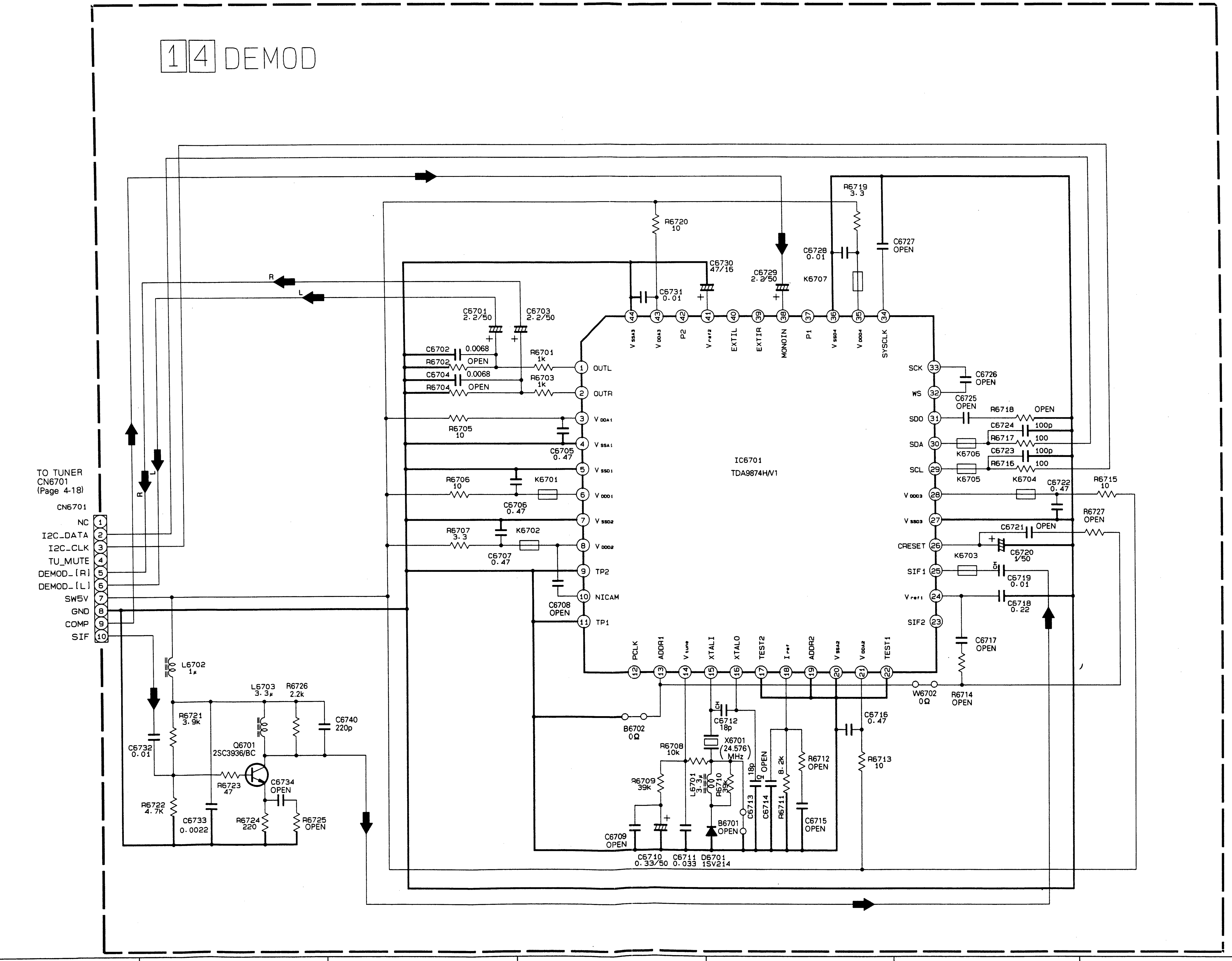
4.13 TERMINAL SCHEMATIC DIAGRAM

NOTE : *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*


06 TERMINAL
J7105 A.OUT(L)
J7106 A.OUT(R)
J7107 A.IN(L)(S-1)
J7108 A.IN(R)(S-1)
J3951 SYNCHRO EDIT
J7109 J.LIP
J7110 R.PAUSE
IC3951 TC7W241FU
IC3952 TC7W241FU
J7101 AV1 IN/OUT (L-1)
J7102 AV2 IN/DECODER (L-2)
Q7101 UN5211
Q7102 2SC4081/QRS
Q7103 2SC4081/QRS
Q7104 2SC4081/QRS
Q7105 2SC4081/QRS
IC7103 NJM1111F
S7101
Y/C → COMP
AV1_YC(IN)(H)
AV2_C/R
COL_FROM_SSUB
SAT_MON_(L)/AV1_YC(IN)(L)
IC7104 BA7623F
IC7101 BH7635S
Q7106 2SA1576A /QRS
CLAMP
BUFFER
CURRENT LIMITER
I2C-BUS CONTROL
J7103 S-IN(S-1)
J7104 S-OUT
IC7102 TC74HC4052AF
REAR_COL.
FRONT_COL.
D/A_COL.
CTL_B
CTL_A
PERI_COL.
REAR_Y
FRONT_Y
PERI_Y
Q7107 2SA1576A /QRS
Q7108 2SA1576A /QRS
AV1_Y B7101 OΩ
AV2_Y B7102 OPEN
AV1_C B7103 OΩ
AV2_C B7104 OPEN
TO MAIN(TERMINAL) CN7503 (Page 4-22)
CN7101
1 GND
2 RMO/J.LIP(L)
3 R.PAUSE/COMPU_IN
4 TXD
5 RXD
6 RF5V
7 RCA_IN(R)
8 RCA_IN(L)
9 LINE_OUT(R)
10 LINE_OUT(L)
11 GND
12 A.IN1(R)
13 A.IN1(L)
14 A.IN2(R)
15 A.IN2(L)
16 DEC_OUT(R)
17 DEC_OUT(L)
TO MAIN(TERMINAL) CN7502 (Page 4-21, 4-22)
CN7102
1 NC
2 F_V_IN
3 GND
4 F_Y_IN
5 GND
6 F_C_IN
7 GND
8 LINE_Y_IN
9 GND
10 LINE_C_IN
11 GND
12 LINE/R_V_IN
13 GND
14 TUNER_VIDEO
15 GND
16 VIDEO_OSD_OUT
17 GND
D/A_OUT(C)
TO MAIN(TERMINAL) CN7501 (Page 4-21)
CN7103
1 NC
2 BIAS_FOR_C_OUT
3 Y_OUT
4 GND
5 C_OUT
6 GND
7 I2C_CLK2
8 I2C_DATA2 NC
9 WA_DET
10 PERI1S
11 P50_I/O
12 SCR(H)
13 CTL_B
14 CTL_A
15 CH+12V/SW12V
16 RF5V
17 AUDIO(-) NC
SW5V
A
B
C
D
E
F
G
H
1
2
3
4
5

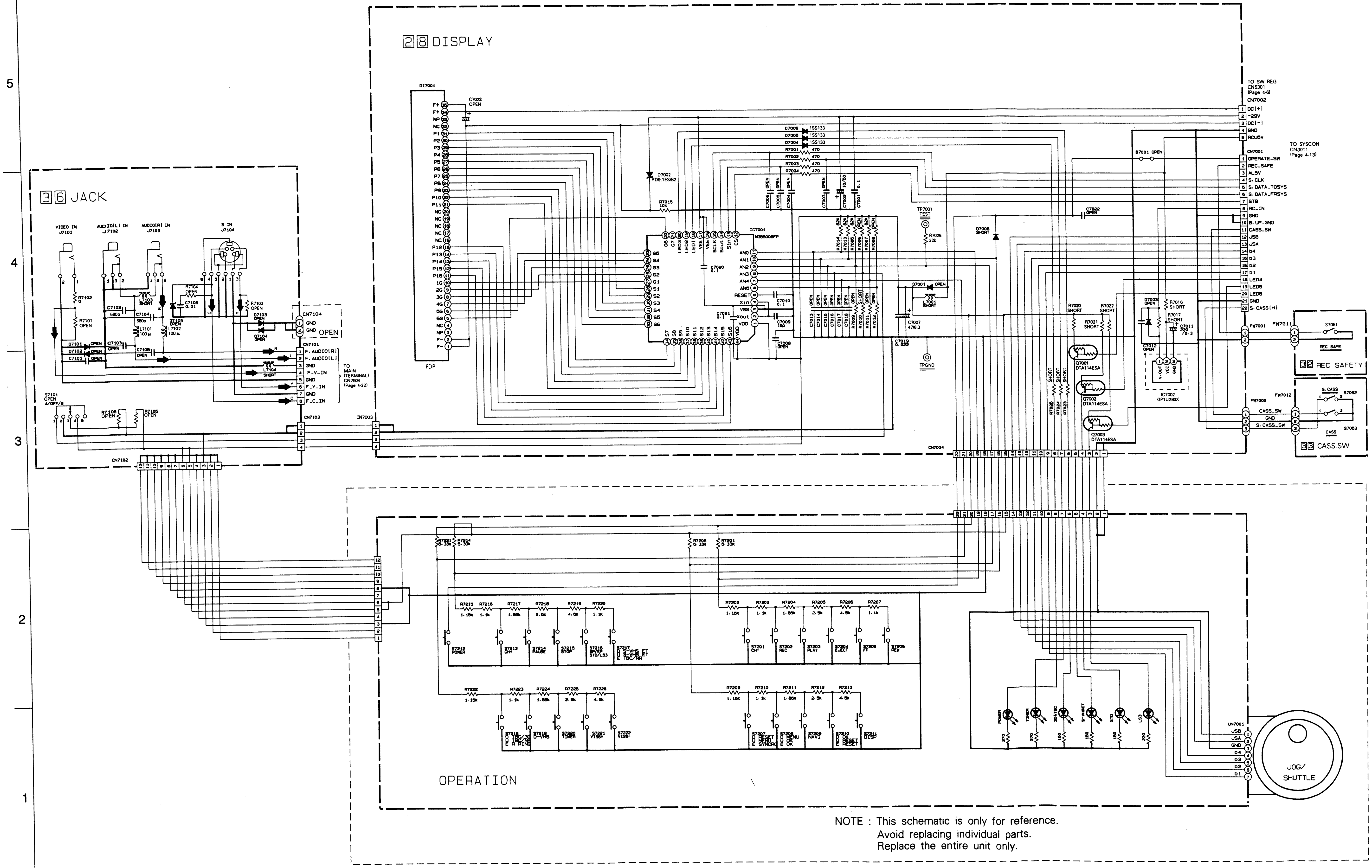
4.14 DEMODULATOR SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


14 DEMOD
TO TUNER
CN6701
(Page 4-18)
CN6701
NC 1
I2C_DATA 2
I2C_CLK 3
TU_MUTE 4
DEMOD_[R] 5
DEMOD_[L] 6
SW5V 7
GND 8
COMP 9
SIF 10
R
L
IC6701
TDA9874H/V1
1 OUTL
2 OUTR
3 VDDA1
4 VSSA1
5 VSSD1
6 VDDD1
7 VSSD2
8 VDDD2
9 TP2
10 NICAM
11 TP1
12 PCLK
13 ADDR1
14 Vtune
15 XTALI
16 XTALO
17 TEST2
18 Iref
19 ADDR2
20 VSSA2
21 VDDA2
22 TEST1
23 SIF2
24 Vref1
25 SIF1
26 CRESET
27 VSSD3
28 VDDD3
29 SCL
30 SDA
31 SDO
32 WS
33 SCK
34 SYSCLK
35 VDDD4
36 VSSD4
37 P1
38 MONOIN
39 EXTIR
40 EXTIL
41 Vref2
42 P2
43 VDDA3
44 VSSA3
C6701 2.2/50
C6703 2.2/50
C6702 0.0068
R6702 OPEN
C6704 0.0068
R6704 OPEN
R6701 1k
R6703 1k
R6705 10
C6705 0.47
R6706 10
K6701
C6706 0.47
R6707 3.3
K6702
C6707 0.47
C6708 OPEN
R6720 10
C6730 47/16
C6731 0.01
C6729 2.2/50
C6728 0.01
K6707
R6719 3.3
C6727 OPEN
C6726 OPEN
C6725 OPEN
R6718 OPEN
C6724 100p
R6717 100
K6706
C6723 100p
R6716 100
K6705
K6704
C6722 0.47
R6715 10
R6727 OPEN
C6721 OPEN
C6720 1/50
K6703
C6719 0.01
C6718 0.22
C6717 OPEN
R6714 OPEN
W6702 0Ω
C6716 0.47
R6713 10
B6702 0Ω
C6712 18p
X6701 (24.576 MHz)
R6708 10k
R6709 39k
L6701 3.3μ
R6710 39k
18p
C6713
OPEN
C6714
8.2k
R6711
R6712 OPEN
C6715 OPEN
B6701 OPEN
C6709 OPEN
C6710 0.33/50
C6711 0.033
D6701 1SV214
L6702 1μ
L6703 3.3μ
R6726 2.2k
C6740 220p
R6721 3.9k
C6732 0.01
Q6701 2SC3936/BC
R6723 47
C6734 OPEN
R6722 4.7K
C6733 0.0022
R6724 220
R6725 OPEN

4.15 DISPLAY, OPERATION, REC SAFETY, CASS.SW AND JACK SCHEMATIC DIAGRAMS

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

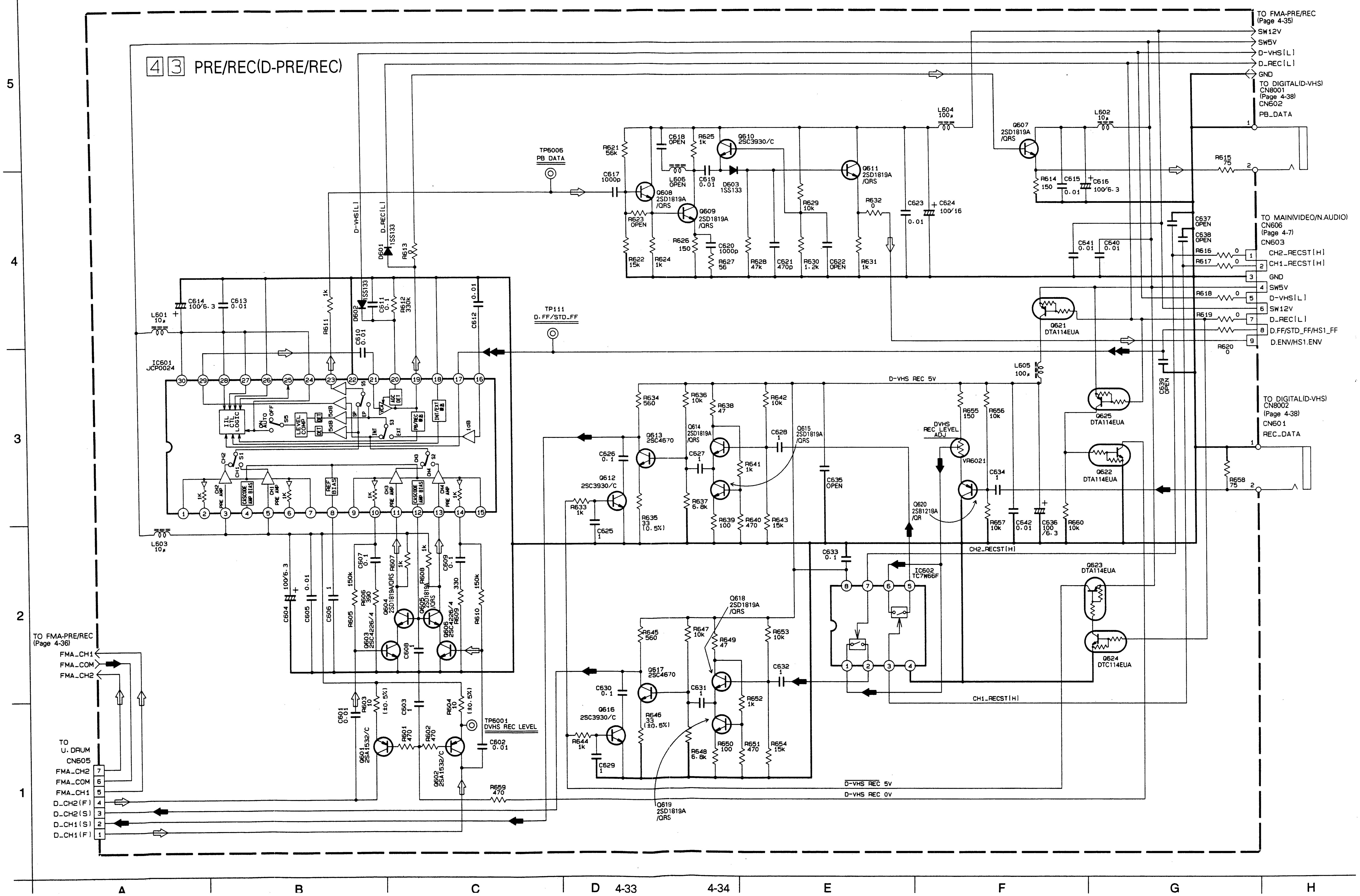


28 DISPLAY
36 JACK
OPERATION
32 REC SAFETY
33 CASS.SW
D17001
FDP
IC7001
M35008FP
TO SW REG CN5301 (Page 4-6)
CN7002
DC(+)
-29V
DC(-)
GND
RCU5V
TO SYSCON CN3011 (Page 4-13)
CN7001
OPERATE_SW
REC_SAFE
AL5V
S.CLK
S.DATA_TOSYS
S.DATA_FRSYS
STB
RC_IN
GND
B.UP_GND
CASS_SW
JSB
JSA
b4
b3
b2
b1
LED4
LED5
LED6
GND
S.CASS(H)
TP7001 TEST
TPGND
IC7002 GP1U280X
Q7001 DTA114ESA
Q7002 DTA114ESA
Q7003 DTA114ESA
D7002 RD9.1ES/B2
S7051 REC SAFE
S7052 S.CASS
S7053 CASS
VIDEO IN J7101
AUDIO(L) IN J7102
AUDIO(R) IN J7103
S IN J7104
CN7104
OPEN
CN7101
F.AUDIO(R)
F.AUDIO(L)
F_V_IN
F_Y_IN
F_C_IN
TO MAIN (TERMINAL) CN7504 (Page 4-22)
S7101 OPEN A/OFF/B
CN7103
CN7003
CN7102
CN7004
S7212 POWER
S7213 CH+
S7214 PAUSE
S7215 STOP
S7216 SP/EP STD/LS3
S7217 S-VHS ET TBC/NR
S7201 CH-
S7202 REC
S7203 PLAY
S7204 EJECT
S7205 FF
S7206 REW
S7218 TBC/NR
S7219 D-VHS
S7220 TIMER
S7221 VISS+
S7222 VISS-
S7207 RESET
S7208 MENU
S7209 NAVI
S7210 RESET
S7211 DISP
POWER
TIMER
S-VHS
STD
LS3
UN7001
JOG/SHUTTLE

NOTE : This schematic is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.

4.16 D-PRE/REC SCHEMATIC DIAGRAM

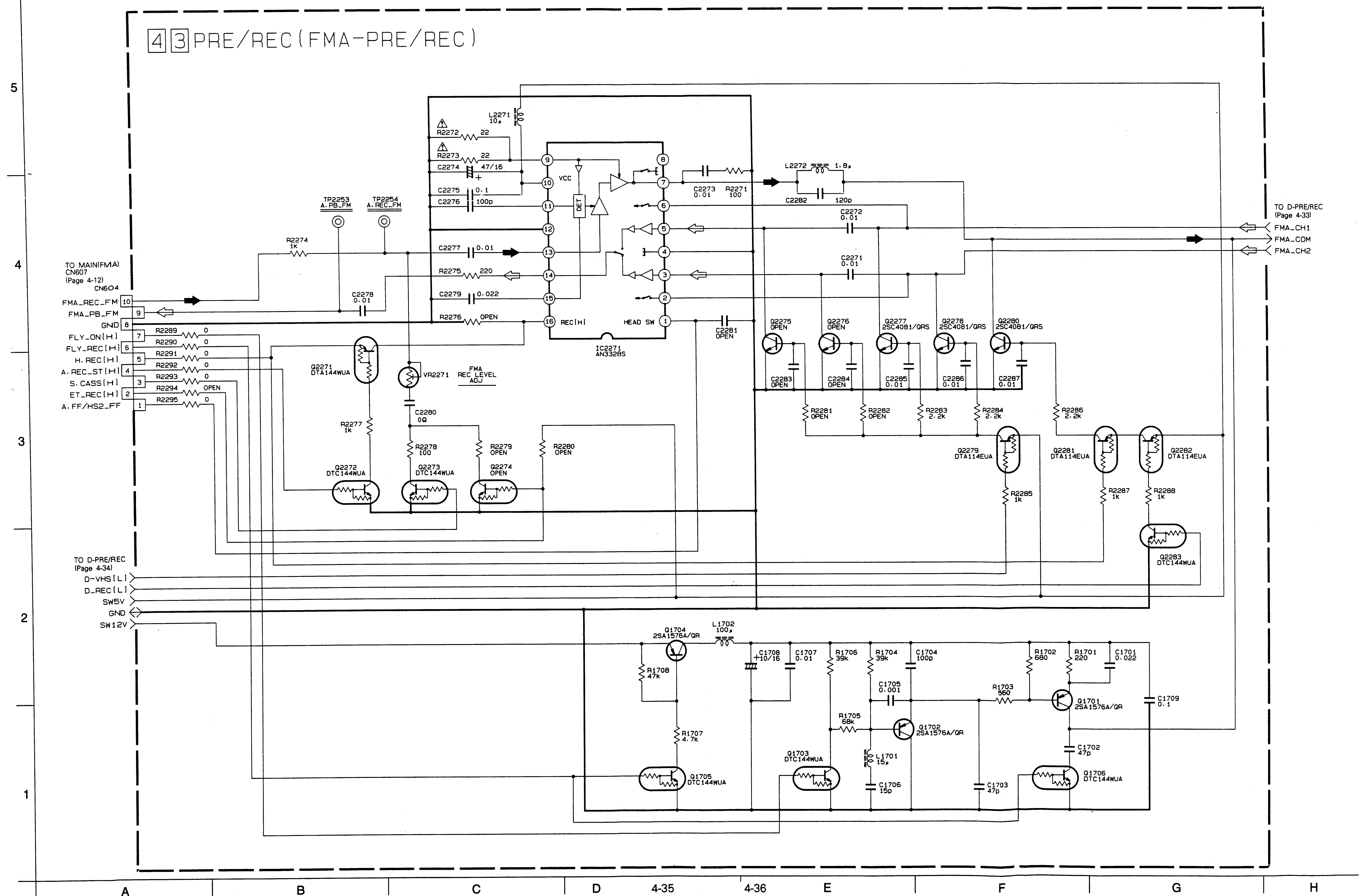
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



43 PRE/REC(D-PRE/REC)
TO FMA-PRE/REC (Page 4-35)
SW12V
SW5V
D-VHS[L]
D-REC[L]
GND
TO DIGITAL(D-VHS) CN8001 (Page 4-38) CN602
PB_DATA
TO MAIN(VIDEO/N.AUDIO) CN606 (Page 4-7) CN603
CH2_RECST[H]
CH1_RECST[H]
GND
SW5V
D-VHS[L]
SW12V
D-REC[L]
D.FF/STD_FF/HS1_FF
D.ENV/HS1.ENV
TO DIGITAL(D-VHS) CN8002 (Page 4-38) CN601
REC_DATA
TO FMA-PRE/REC (Page 4-36)
FMA_CH1
FMA_COM
FMA_CH2
TO U. DRUM CN605
FMA_CH2
FMA_COM
FMA_CH1
D_CH2(F)
D_CH2(S)
D_CH1(S)
D_CH1(F)
TP6006 PB DATA
TP111 D.FF/STD_FF
TP6001 DVHS REC LEVEL
IC601 JCP0024
IC602 TC7W66F
IIL CTL LOGIC
LEVEL COMP
AGC DET
INT/EXT
REF BIAS
CH2 PRE AMP
CH1 PRE AMP
CH3 PRE AMP
CH4 PRE AMP
CASCODE AMP BIAS
D-VHS REC 5V
D-VHS REC 0V
DVHS REC LEVEL ADJ VR6021
Q607 2SD1819A /QRS
Q608 2SD1819A /QRS
Q609 2SD1819A /QRS
Q610 2SC3930/C
Q611 2SD1819A /QRS
Q612 2SC3930/C
Q613 2SC4670
Q614 2SD1819A /QRS
Q615 2SD1819A /QRS
Q616 2SC3930/C
Q617 2SC4670
Q618 2SD1819A /QRS
Q619 2SD1819A /QRS
Q620 2SB1218A /QR
Q621 DTA114EUA
Q622 DTA114EUA
Q623 DTA114EUA
Q624 DTC114EUA
Q625 DTA114EUA
Q601 2SA1532/C
Q602 2SA1532/C
Q603 2SC4226/4
Q604 2SD1819A/QRS
Q605 2SD1819A /QRS
Q606 2SC4226/4
D601 1SS133
D602 1SS133
D603 1SS133
L601 10μ
L602 10μ
L603 10μ
L604 100μ
L605 100μ
L606 OPEN
R615 75
R658 75
R620 0
R659 470
CH2_RECST[H]
CH1_RECST[H]
A
B
C
D
E
F
G
H
1
2
3
4
5

4.17 FMA-PRE/REC SCHEMATIC DIAGRAM

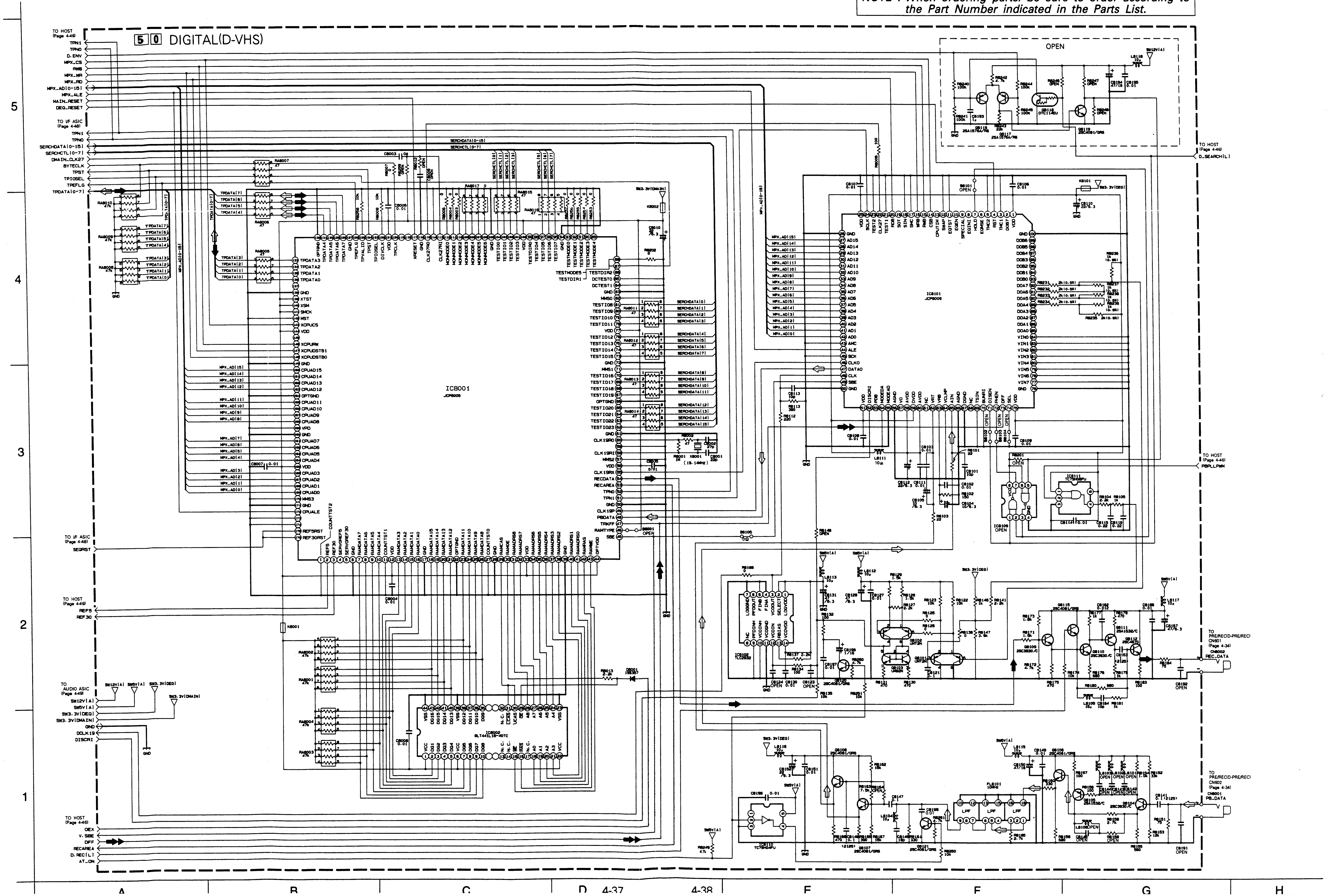
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4 3 PRE/REC (FMA-PRE/REC)
TO MAIN(FMA) CN607 (Page 4-12)
CN604
FMA_REC_FM 10
FMA_PB_FM 9
GND 8
FLY_ON[H] 7
FLY_REC[H] 6
H. REC[H] 5
A. REC_ST[H] 4
S. CASS[H] 3
ET_REC[H] 2
A. FF/HS2_FF 1
R2289 0
R2290 0
R2291 0
R2292 0
R2293 0
R2294 OPEN
R2295 0
TP2253 A. PB_FM
TP2254 A. REC_FM
R2274 1k
C2278 0.01
L2271 10μ
R2272 22
R2273 22
C2274 47/16
C2275 0.1
C2276 100p
C2277 0.01
R2275 220
C2279 0.022
R2276 OPEN
VCC
DET
REC[H]
HEAD SW
IC2271 AN3328S
C2273 0.01
R2271 100
L2272 1.8μ
C2282 120p
C2272 0.01
C2271 0.01
C2281 OPEN
Q2271 DTA144WUA
VR2271
FMA REC LEVEL ADJ
C2280 0Ω
R2277 1k
R2278 100
R2279 OPEN
R2280 OPEN
Q2272 DTC144WUA
Q2273 DTC144WUA
Q2274 OPEN
Q2275 OPEN
Q2276 OPEN
Q2277 2SC4081/QRS
Q2278 2SC4081/QRS
Q2280 2SC4081/QRS
C2283 OPEN
C2284 OPEN
C2285 0.01
C2286 0.01
C2287 0.01
R2281 OPEN
R2282 OPEN
R2283 2.2k
R2284 2.2k
R2286 2.2k
Q2279 DTA114EUA
Q2281 DTA114EUA
Q2282 DTA114EUA
R2285 1k
R2287 1k
R2288 1k
Q2283 DTC144WUA
TO D-PRE/REC (Page 4-33)
FMA_CH1
FMA_COM
FMA_CH2
TO D-PRE/REC (Page 4-34)
D-VHS[L]
D_REC[L]
SW5V
GND
SW12V
Q1704 2SA1576A/QR
L1702 100μ
R1708 47k
R1707 4.7k
C1708 10/16
C1707 0.01
R1706 39k
R1704 39k
C1704 100p
C1705 0.001
R1705 68k
Q1702 2SA1576A/QR
L1701 15μ
C1706 15p
Q1703 DTC144WUA
Q1705 DTC144WUA
R1702 680
R1701 220
C1701 0.022
R1703 560
Q1701 2SA1576A/QR
C1709 0.1
C1702 47p
C1703 47p
Q1706 DTC144WUA
1
2
3
4
5
A
B
C
D
E
F
G
H

4.18 D-VHS SCHEMATIC DIAGRAM

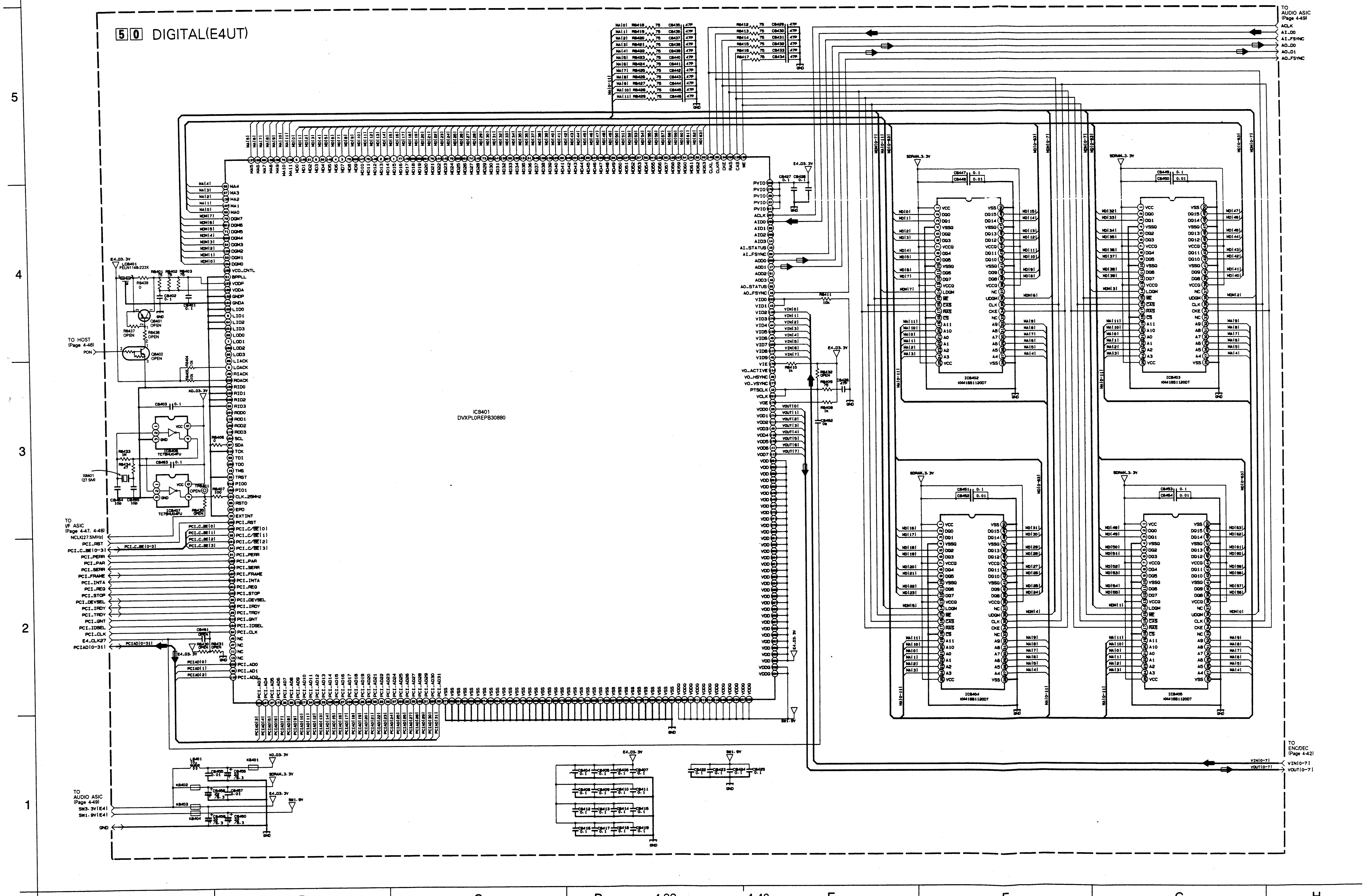
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



50 DIGITAL(D-VHS)
OPEN
TO HOST (Page 4-46)
TPN1
TPN0
D.ENV
MPX_CS
RWB
MPX_WR
MPX_RD
MPX_AD[0-15]
MPX_ALE
MAIN_RESET
DEG_RESET
TO VF ASIC (Page 4-48)
SERCHDATA[0-15]
SERCHCTL[0-7]
DMAIN_CLK27
BYTECLK
TPST
TPIOSEL
TPEFLG
TPDATA[0-7]
IC8001
JCP8005
IC8101
JCP8009
IC8002
BLT441L16-40TC
IC8109
OPEN
IC8111
TC7SH08FU
IC8110
TC7SH04FU
IC8102
TLC2932
X8001 (19.14MHz)
TO HOST (Page 4-46) D_SEARCH[L]
TO HOST (Page 4-46) PBPLLPWM
TO VF ASIC (Page 4-48) SEQRST
TO HOST (Page 4-46) REF5 REF30
TO AUDIO ASIC (Page 4-49)
SW12V[A]
SW5V[A]
SW3.3V[DEQ]
SW3.3V[DMAIN]
GND
DCLK19
DISCRI
TO HOST (Page 4-46)
OEX
V.SBE
DFF
RECAREA
D.REC[L]
AT_ON
TO PRE/REC(D-PRE/REC) CN601 (Page 4-34) CN8002 REC_DATA
TO PRE/REC(D-PRE/REC) CN602 (Page 4-34) CN8001 PB_DATA
FL8101 10MHz
LPF
5
4
3
2
1
A
B
C
D
E
F
G
H

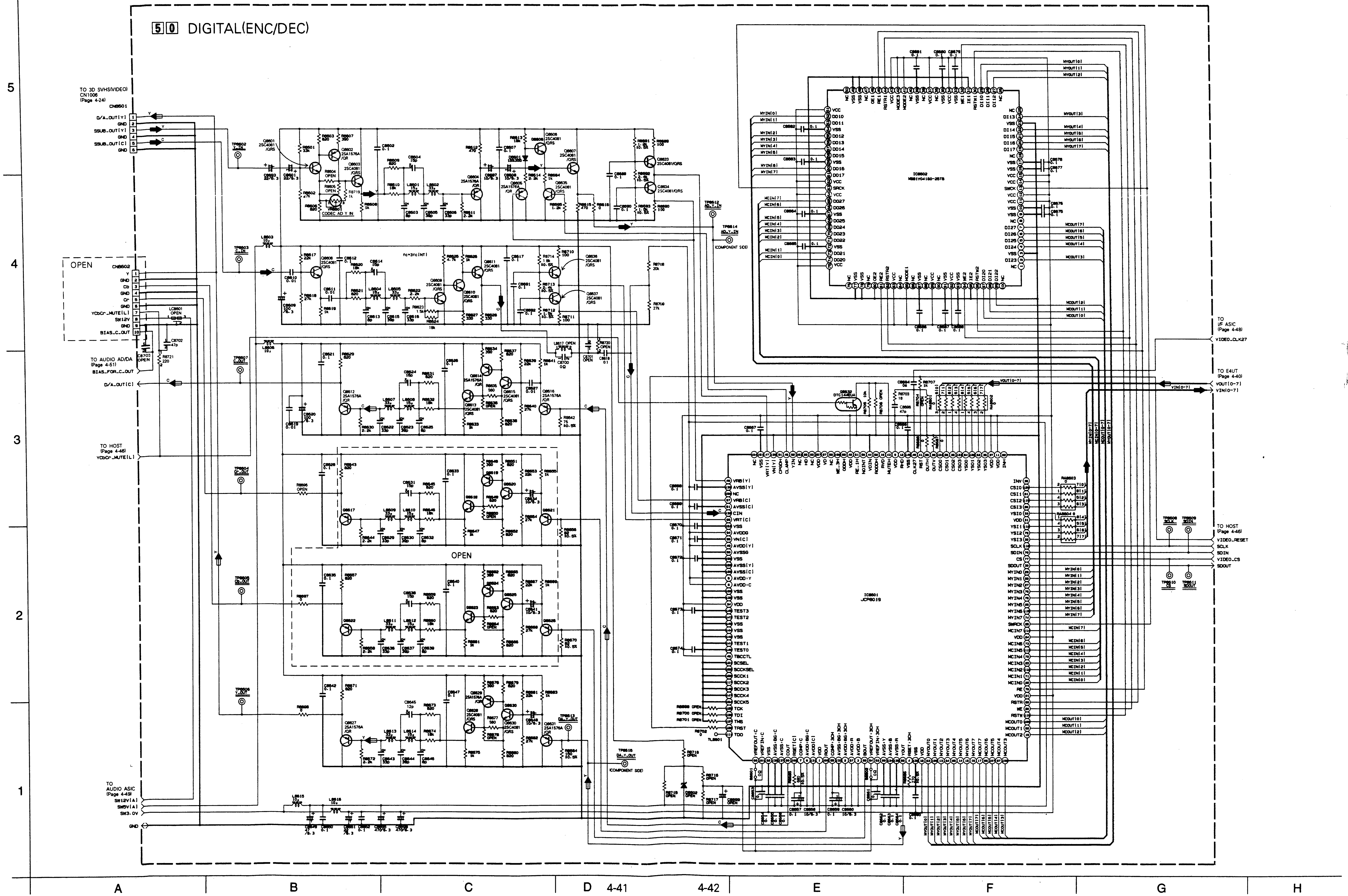
4.19 E4UT SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


50 DIGITAL(E4UT)
TO AUDIO ASIC (Page 4-49)
ACLK
AI_D0
AI_FSYNC
AO_D0
AO_D1
AO_FSYNC
IC8401
DVXPL0REPB30880
IC8402
KM416S1120DT
IC8403
KM416S1120DT
IC8404
KM416S1120DT
IC8405
KM416S1120DT
SDRAM_3.3V
E4_D3.3V
X0_D3.3V
SW1.9V
TO HOST (Page 4-48)
PON
Q8401 OPEN
Q8402 OPEN
L8401 FELN1148-223X
IC8406 TC7SHU04FU
IC8407 TC7SHU04FU
X8401 (27.5M)
TO I/F ASIC (Page 4-47, 4-48)
NCLK(27.5MHz)
PCI_RST
PCI_C_BE[0-3]
PCI_PERR
PCI_PAR
PCI_SERR
PCI_FRAME
PCI_INTA
PCI_REQ
PCI_STOP
PCI_DEVSEL
PCI_IRDY
PCI_TRDY
PCI_GNT
PCI_IDSEL
PCI_CLK
E4_CLK27
PCIAD[0-31]
TO ENC/DEC (Page 4-42)
VIN[0-7]
VOUT[0-7]
TO AUDIO ASIC (Page 4-49)
SW3.3V[E4]
SW1.9V[E4]
GND
5
4
3
2
1
A
B
C
D
E
F
G
H

4.20 ENC/DEC SCHEMATIC DIAGRAM

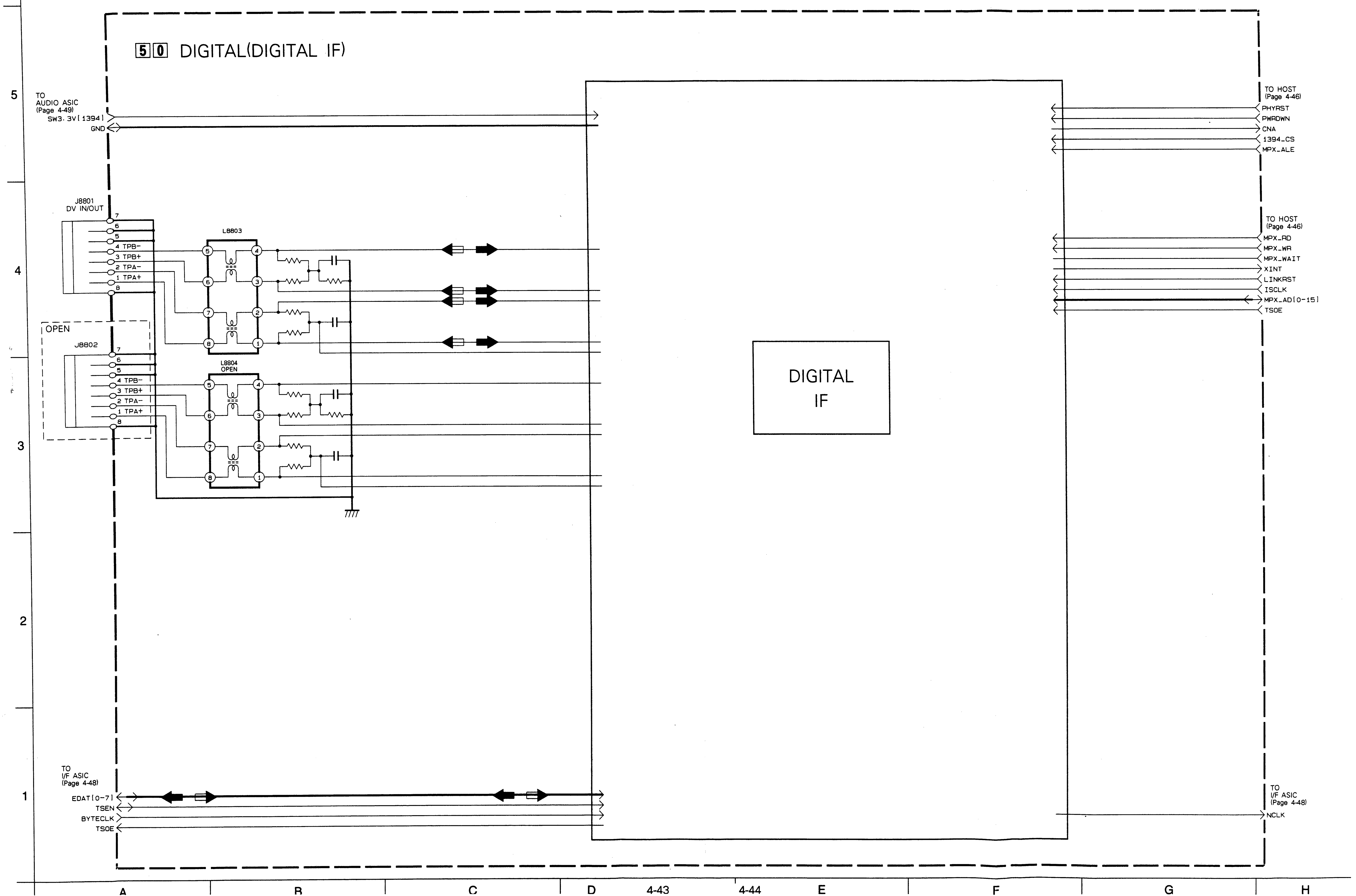
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



50 DIGITAL(ENC/DEC)
TO 3D SVHS(VIDEO) CN1006 (Page 4-24)
CN8501
D/A_OUT(Y)
GND
SSUB_OUT(Y)
SSUB_OUT(C)
OPEN
CN8502
Y
Cb
Cr
YCbCr_MUTE(L)
SW12V
BIAS_C_OUT
TO AUDIO AD/DA (Page 4-51)
BIAS_FOR_C_OUT
D/A_OUT(C)
TO HOST (Page 4-46)
YCbCr_MUTE(L)
TO AUDIO ASIC (Page 4-49)
SW12V(A)
SW5V(A)
SW3.0V
GND
CODEC AD Y IN
fc=3fc(NT)
IC8502
MSM51V04160-2ST8
IC8501
JCP8019
TO I/F ASIC (Page 4-48)
VIDEO_CLK27
TO E4UT (Page 4-40)
VOUT(0-7)
VIN(0-7)
TO HOST (Page 4-46)
VIDEO_RESET
SCLK
SDIN
VIDEO_CS
SDOUT
(COMPONENT SIDE)
DTC144EUA
5
4
3
2
1
A
B
C
D
E
F
G
H

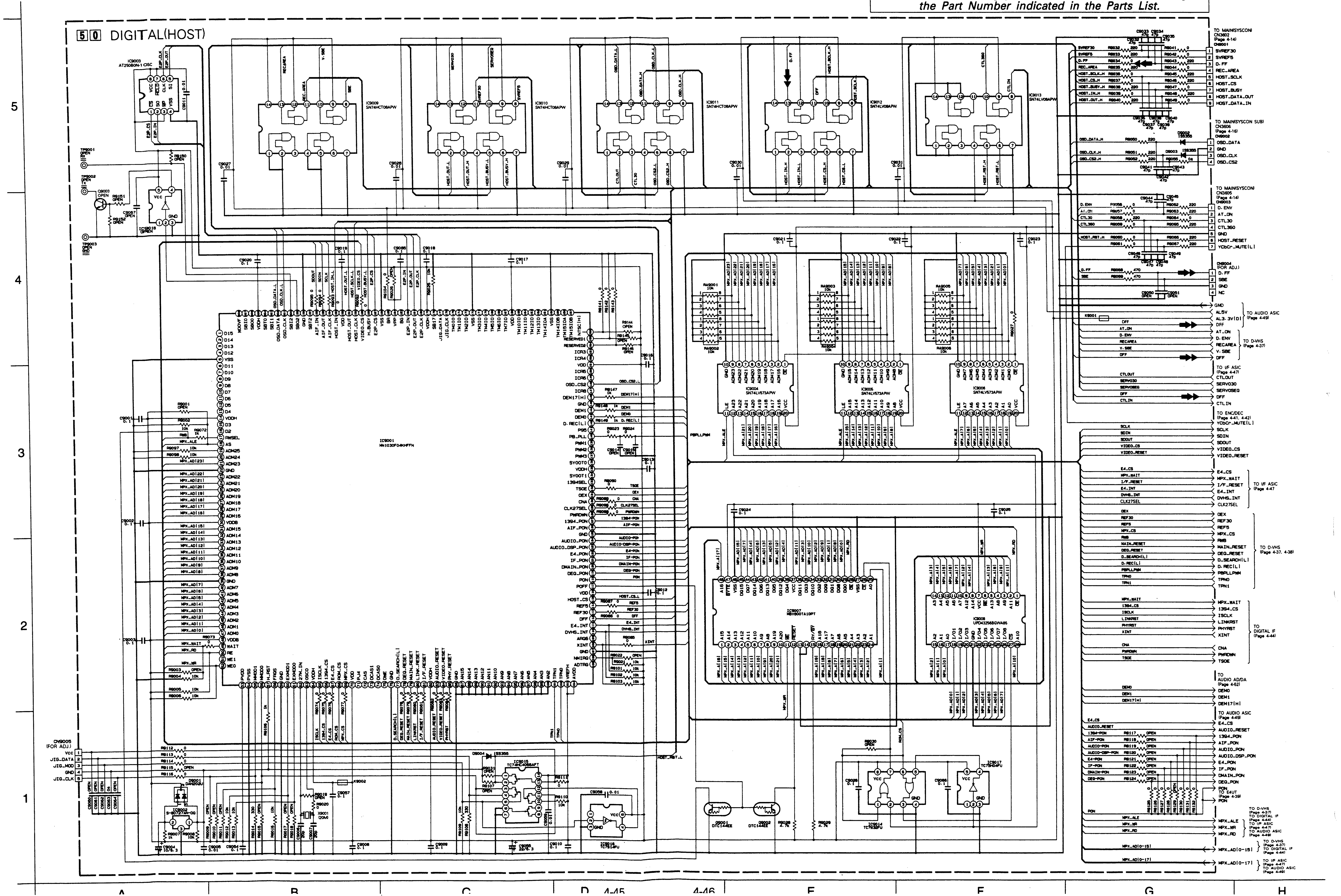
4.21 DIGITAL IF SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


50 DIGITAL(DIGITAL IF)
TO
AUDIO ASIC
(Page 4-49)
SW3. 3V[1394]
GND
J8801
DV IN/OUT
7
6
5
4 TPB-
3 TPB+
2 TPA-
1 TPA+
8
OPEN
J8802
7
6
5
4 TPB-
3 TPB+
2 TPA-
1 TPA+
8
L8803
L8804
OPEN
DIGITAL
IF
TO HOST
(Page 4-46)
PHYRST
PWRDWN
CNA
1394_CS
MPX_ALE
TO HOST
(Page 4-46)
MPX_RD
MPX_WR
MPX_WAIT
XINT
LINKRST
ISCLK
MPX_AD[0-15]
TSOE
TO
I/F ASIC
(Page 4-48)
EDAT[0-7]
TSEN
BYTECLK
TSOE
TO
I/F ASIC
(Page 4-48)
NCLK
5
4
3
2
1
A
B
C
D
E
F
G
H

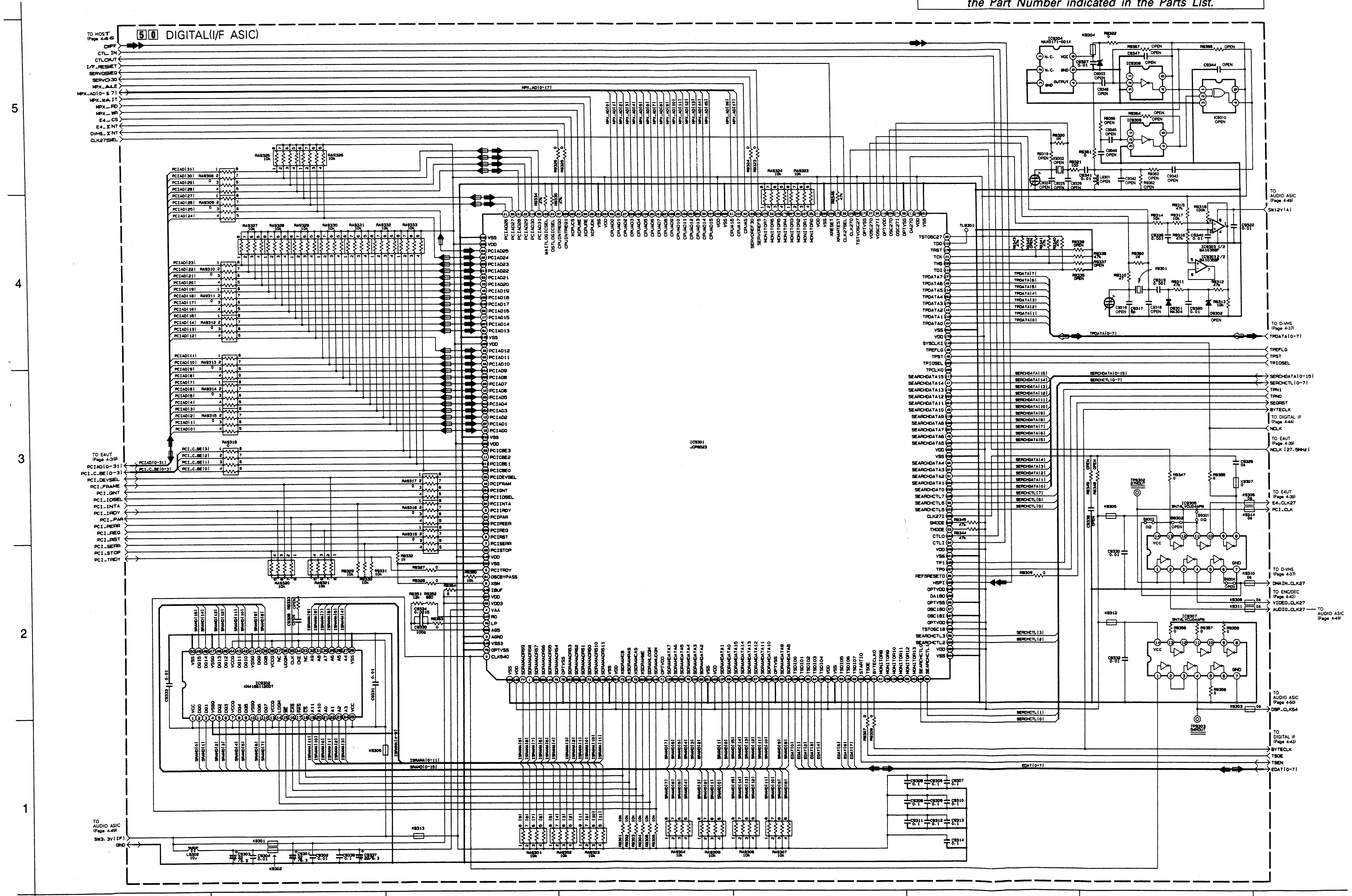
4.22 HOST SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


50 DIGITAL(HOST)
IC9003 AT250B0N-1 OSC
IC9009 SN74HCT08APW
IC9010 SN74HCT08APW
IC9011 SN74HCT08APW
IC9012 SN74LV08APW
IC9013 SN74LV08APW
IC9001 MN103OF04KHFFN
IC9004 SN74LV573APW
IC9005 SN74LV573APW
IC9006 SN74LV573APW
IC9007 MBV800TA10PT
IC9008 UPD43256BGW-A85
IC9015 TC74HC4066AFT
IC9014 TC7S32FU
IC9016 TC7S14FU
IC9017 TC7SH04FU
IC9018
Q9001 DTC144EE
Q9002 DTC144EE
X9001 20MHz
CN9005 (FOR ADJ.)
VCC
JIG_DATA
JIG_MOD
GND
JIG_CLK
TP9001
TP9002
TP9003
TO MAINSYSCON CN3602 (Page 4-14) CN9001
SVREF30
SVREF5
D.FF
REC_AREA
HOST_SCLK
HOST_CS
HOST_BUSY
HOST_DATA_OUT
HOST_DATA_IN
TO MAINSYSCON SUB CN3606 (Page 4-16) CN9002
OSD_DATA
GND
OSD_CLK
OSD_CS2
TO MAINSYSCON CN3605 (Page 4-14) CN9003
D.ENV
AT_ON
CTL30
CTL360
GND
HOST_RESET
YCbCr_MUTE(L)
CN9004 (FOR ADJ.)
D.FF
SBE
GND
NC
TO AUDIO ASIC (Page 4-49)
TO D-VHS (Page 4-37)
TO I/F ASIC (Page 4-47)
TO ENC/DEC (Page 4-41, 4-42)
TO D-VHS (Page 4-37, 4-38)
TO DIGITAL IF (Page 4-44)
TO AUDIO AD/DA (Page 4-62)
TO AUDIO ASIC (Page 4-49)
TO E4UT (Page 4-39)
MPX_ALE
MPX_WR
MPX_RD
MPX_AD[0-15]
MPX_AD[0-17]
1
2
3
4
5
A
B
C
D
E
F
G
H

4.23 I/F ASIC SCHEMATIC DIAGRAM

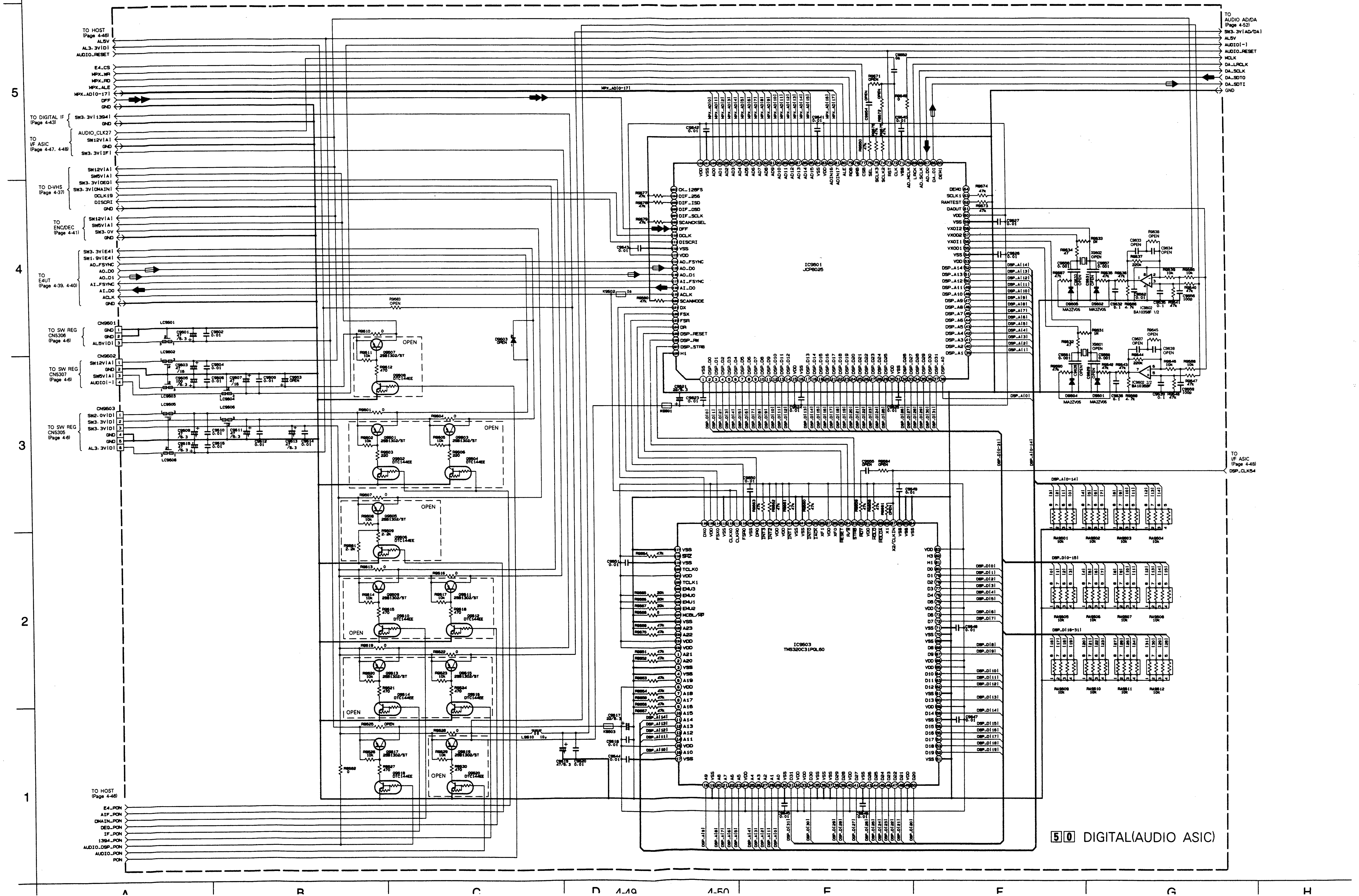
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



50 DIGITAL(I/F ASIC)
TO HOST (Page 4-46)
DIFF
CTL_IN
CTLOUT
I/F_RESET
SERVOSEQ
SERVO30
MPX_ALE
MPX_AD[0-17]
MPX_WAIT
MPX_RD
MPX_WR
E4_CS
E4_INT
DVHS_INT
CLK27SEL
TO E4UT (Page 4-39)
PCIAD[0-31]
PCI_C_BE[0-3]
PCI_DEVSEL
PCI_FRAME
PCI_GNT
PCI_IDSEL
PCI_INTA
PCI_IRDY
PCI_PAR
PCI_PERR
PCI_REQ
PCI_RST
PCI_SERR
PCI_STOP
PCI_TRDY
IC9301 JCP8023
IC9302 KM416S1120DT
IC9304 MAX6711-001X
IC9303 BA10358F
IC9305 SN74LVCU04APW
IC9307 SN74LVCU04APW
IC9310
TO AUDIO ASIC (Page 4-49)
SW12V[A]
TO D-VHS (Page 4-37)
TPDATA[0-7]
TPEFLG
TPST
TPIOSEL
SERCHDATA[0-15]
SERCHCTL[0-7]
TPN1
TPN0
SEQRST
BYTECLK
TO DIGITAL IF (Page 4-44)
NCLK
TO E4UT (Page 4-39)
NCLK [27.5MHz]
E4_CLK27
PCI_CLK
DMAIN_CLK27
TO ENC/DEC (Page 4-42)
VIDEO_CLK27
AUDIO_CLK27
TO AUDIO ASIC (Page 4-50)
DSP_CLK54
TO DIGITAL IF (Page 4-43)
TSOE
TSEN
EDAT[0-7]
TO AUDIO ASIC (Page 4-49)
SW3.3V[IF]
GND
TP9302 27MOUT
TP9303 54MOUT
A
B
C
D
E
F
G
H
1
2
3
4
5

4.24 AUDIO ASIC SCHEMATIC DIAGRAM

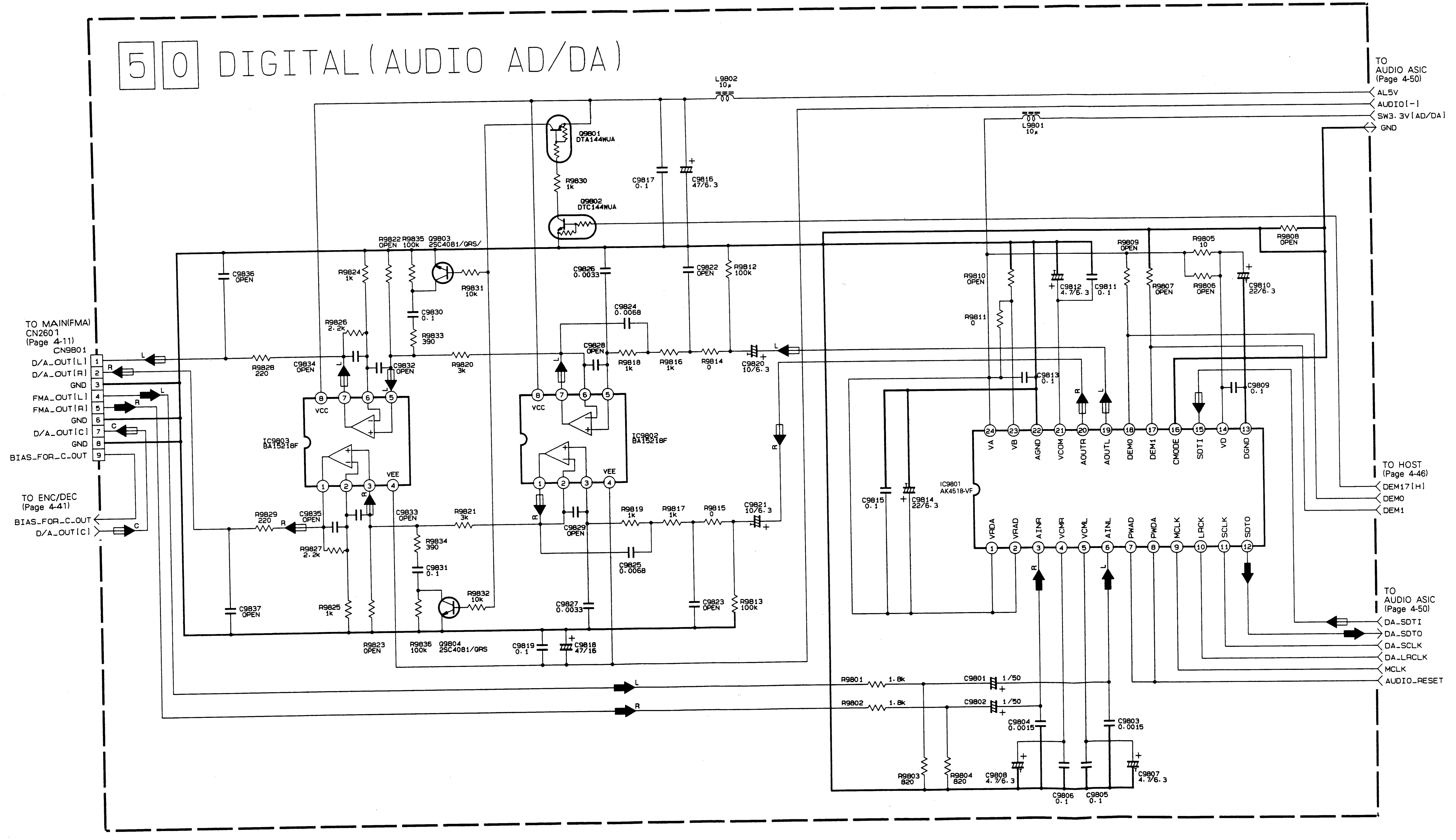
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



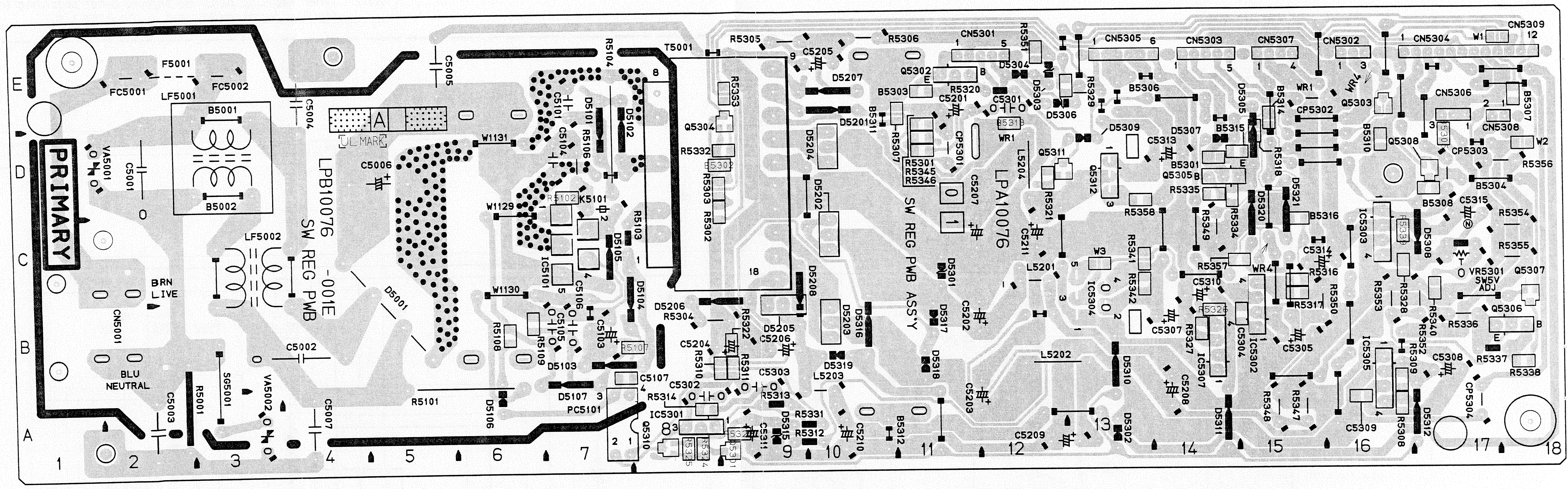
TO HOST (Page 4-46)
TO DIGITAL IF (Page 4-43)
TO I/F ASIC (Page 4-47, 4-48)
TO D-VHS (Page 4-37)
TO ENC/DEC (Page 4-41)
TO E4UT (Page 4-39, 4-40)
TO SW REG CN5306 (Page 4-6)
TO SW REG CN5307 (Page 4-6)
TO SW REG CN5305 (Page 4-6)
TO HOST (Page 4-46)
TO AUDIO AD/DA (Page 4-52)
TO I/F ASIC (Page 4-48)
IC9601 JCP8025
IC9603 TMS320C31PQL60
IC9602 BA10358F
CN9601
CN9602
CN9603
50 DIGITAL(AUDIO ASIC)
5
4
3
2
1
A
B
C
D
E
F
G
H

4.25 AUDIO AD/DA SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.


5 0 DIGITAL(AUDIO AD/DA)
TO MAIN(FMA)
CN2601
(Page 4-11)
CN9801
D/A_OUT[L] 1
D/A_OUT[R] 2
GND 3
FMA_OUT[L] 4
FMA_OUT[R] 5
GND 6
D/A_OUT[C] 7
GND 8
BIAS_FOR_C_OUT 9
TO ENC/DEC
(Page 4-41)
BIAS_FOR_C_OUT
D/A_OUT[C]
L
R
C
L9802 10μ
L9801 10μ
Q9801 DTA144WUA
Q9802 DTC144WUA
R9830 1k
C9817 0.1
C9816 47/6.3
R9822 OPEN
R9835 100k
Q9803 2SC4081/QRS/
R9831 10k
C9836 OPEN
R9824 1k
C9830 0.1
R9833 390
R9826 2.2k
R9828 220
C9834 OPEN
C9832 OPEN
R9820 3k
VCC
VEE
IC9803 BA15218F
C9826 0.0033
C9824 0.0068
C9828 OPEN
R9818 1k
R9816 1k
R9814 0
C9820 10/6.3
C9822 OPEN
R9812 100k
IC9802 BA15218F
R9829 220
C9835 OPEN
R9827 2.2k
C9833 OPEN
R9821 3k
R9834 390
C9831 0.1
R9832 10k
R9825 1k
C9837 OPEN
R9823 OPEN
R9835 100k
Q9804 2SC4081/QRS
C9819 0.1
C9818 47/16
C9827 0.0033
C9829 OPEN
C9825 0.0068
R9819 1k
R9817 1k
R9815 0
C9821 10/6.3
C9823 OPEN
R9813 100k
R9810 OPEN
R9811 0
C9812 4.7/6.3
C9811 0.1
R9809 OPEN
R9807 OPEN
R9805 10
R9806 OPEN
R9808 OPEN
C9810 22/6.3
C9813 0.1
C9809 0.1
C9815 0.1
C9814 22/6.3
IC9801 AK4518-VF
VA 24
VB 23
AGND 22
VCOM 21
AOUTR 20
AOUTL 19
DEM0 18
DEM1 17
CMODE 16
SDTI 15
VD 14
DGND 13
VRDA 1
VRAD 2
AINR 3
VCMR 4
VCML 5
AINL 6
PWAD 7
PWDA 8
MCLK 9
LRCK 10
SCLK 11
SDTO 12
R9801 1.8k
R9802 1.8k
C9801 1/50
C9802 1/50
C9804 0.0015
C9803 0.0015
R9803 820
R9804 820
C9808 4.7/6.3
C9807 4.7/6.3
C9806 0.1
C9805 0.1
TO
AUDIO ASIC
(Page 4-50)
AL5V
AUDIO[-]
SW3.3V[AD/DA]
GND
TO HOST
(Page 4-46)
DEM17[H]
DEMO
DEM1
TO
AUDIO ASIC
(Page 4-50)
DA_SDTI
DA_SDTO
DA_SCLK
DA_LRCLK
MCLK
AUDIO_RESET

4.26 SWITCHING REGULATOR CIRCUIT BOARD



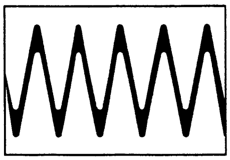
COMPONENT PARTS LOCATION GUIDE <SW REGULATOR>

REF.NO.	LOCATION		
CAPACITOR			
C5001	A	D	2E
C5002	A	D	4B
C5003	A	D	2A
C5004	A	D	4E
C5005	A	D	5E
C5006	A	D	5D
C5007	A	D	4A
C5101	A	D	7E
C5103	A	D	7B
C5104	A	D	7D
C5105	A	D	7B
C5106	A	D	7B
C5107	B	C	7B
C5201	A	D	11E
C5202	A	D	12B
C5203	A	D	12A
C5204	A	D	8B
C5205	A	D	10E
C5206	A	D	9B
C5207	A	D	11C
C5208	A	D	14B
C5209	A	D	13A
C5210	A	D	10A
C5211	A	D	12C
C5301	A	D	12E
C5302	A	D	8A
C5303	A	D	9A
C5304	B	C	15B
C5305	A	D	15B
C5307	A	D	14B
C5308	A	D	17B
C5309	B	C	16A
C5310	A	D	14B
C5311	A	D	9A
C5313	A	D	14D
C5314	A	D	16C
C5315	A	D	17C
CONNECTOR			
CN5001	A	D	1B
CN5301	A	D	11E
CN5302	A	D	16E
CN5303	A	D	14E
CN5304	A	D	16E
CN5305	A	D	13E
CN5306	A	D	17E
CN5307	A	D	15E
CN5308	A	D	18D
DIODE			
D5001	A	D	5B
D5101	A	D	7E
D5102	A	D	7D
D5103	A	D	8B
D5104	A	D	8C
D5105	A	D	7C
D5106	A	D	6A
D5107	A	D	7B
D5201	A	D	9E
D5202	A	D	10C
D5203	A	D	10B
D5204	A	D	10D
D5205	A	D	9B
D5206	A	D	9B
D5207	A	D	10E
D5208	A	D	9C
D5301	A	D	11C
D5302	A	D	13A
D5303	A	D	12E
D5304	A	D	12E
D5305	A	D	15D
D5306	A	D	12E
D5307	A	D	14D
D5308	A	D	17D
D5309	A	D	13D
D5310	A	D	13A
D5311	A	D	14A
D5312	A	D	17A
D5315	A	D	9A
D5316	A	D	10B
D5317	A	D	11B
D5318	A	D	11B
D5319	A	D	10B
D5320	A	D	15C
D5321	A	D	15C
IC			
IC5101	A	D	7C
IC5301	A	D	8A
IC5302	A	D	15B
IC5303	A	D	16C
IC5304	A	D	13B
IC5305	A	D	16B
IC5307	A	D	14B
COIL			
L5201	A	D	12C
L5202	A	D	12B
L5203	A	D	9A
L5204	A	D	12D
TRANSISTOR			
Q5301	B	C	9A
Q5302	A	D	11E
Q5303	B	C	16E
Q5304	B	C	9E
Q5305	A	D	15D
Q5306	A	D	17B
Q5307	B	C	18B
Q5308	B	C	17D
Q5310	B	C	8A
Q5311	B	C	13D
Q5312	A	D	13D
RESISTOR			
R5001	A	D	2B
R5101	A	D	5A
R5102	B	C	7D
R5103	A	D	7C
R5104	A	D	7E
R5106	A	D	7D
R5107	B	C	8B
R5108	B	C	6B
R5109	B	C	6B
R5301	B	C	11D
R5302	B	C	9C
R5303	B	C	9D
R5304	A	D	8B
R5305	A	D	9E
R5306	A	D	10E
R5307	B	C	11E
R5308	B	C	16A
R5309	B	C	16A
R5310	B	C	9B
R5311	B	C	9B
R5312	A	D	9A
R5313	A	D	9A
R5314	B	C	8A
R5316	B	C	15C
R5317	B	C	15B
R5318	B	C	15D
R5320	A	D	12E
R5321	B	C	12D
R5322	B	C	9B
R5323	B	C	9A
R5324	B	C	8A
R5325	B	C	8A
R5326	B	C	14B
R5327	B	C	14B
R5328	B	C	16C
R5329	B	C	13E
R5331	A	D	9A
R5332	B	C	9D
R5333	B	C	9E
R5334	B	C	14D
R5335	B	C	14D
R5336	A	D	17B
R5337	A	D	17B
R5338	B	C	18B
R5339	B	C	16C
R5340	B	C	17C
R5341	B	C	13C
R5342	B	C	13C
R5345	B	C	11D
R5346	B	C	11D
R5347	A	D	15A
R5348	A	D	15A
R5349	A	D	14C
R5350	A	D	15B
R5351	B	C	12E
R5352	A	D	17B
R5353	A	D	16B
R5354	A	D	17C
R5355	A	D	17C
R5356	A	D	17D
R5357	B	C	15C
R5358	B	C	13D
VR5301	A	D	17C
OTHER			
CP5301	A	D	11D
CP5302	A	D	15E
CP5303	A	D	17D
CP5304	A	D	17A
F5001	A	D	2E
K5101	A	D	7D
LF5001	A	D	3D
LF5002	A	D	4C
PC5101	A	D	7A
SG5001	A	D	3A
T5001	A	D	8C
VA5001	A	D	1D
VA5002	A	D	3A

WAVEFORMS (MAIN)

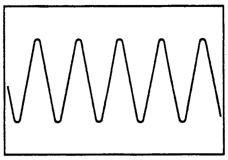
— VIDEO/N.AUDIO —

WF1 IC1-4



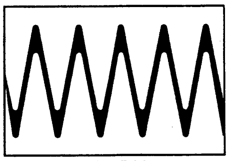
REC 0.7 Vp-p
20 mV/0.5 msec/DIV

WF2 IC1-9



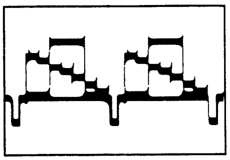
REC 0.92 Vp-p
2 mV/0.5 msec/DIV

WF3 IC1-11



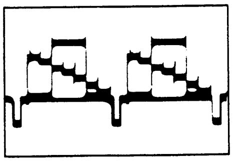
PB 0.45 Vp-p
10 mV/0.5 msec/DIV

WF4-1 IC1-19



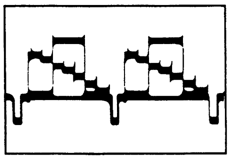
REC 0.51 Vp-p
20 mV/20 µsec/DIV

WF4-2 IC1-19



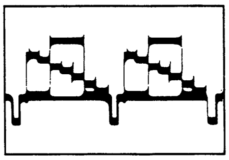
PB 0.55 Vp-p
20 mV/20 µsec/DIV

WF5-1 IC1-23



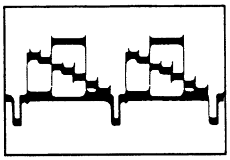
REC 0.48 Vp-p
20 mV/20 µsec/DIV

WF5-2 IC1-23



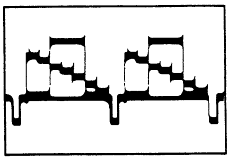
PB 0.52 Vp-p
20 mV/20 µsec/DIV

WF6-1 IC1-42



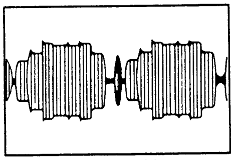
REC 0.4 Vp-p
10 mV/20 µsec/DIV

WF6-2 IC1-42



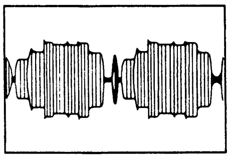
PB 0.44 Vp-p
10 mV/20 µsec/DIV

WF7-1 IC1-46



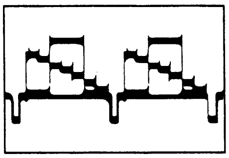
REC 0.22 Vp-p
5 mV/10 µsec/DIV

WF7-2 IC1-46



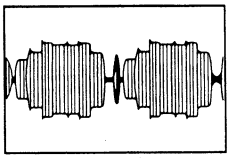
PB 0.3 Vp-p
10 mV/20 µsec/DIV

WF8 IC1-52



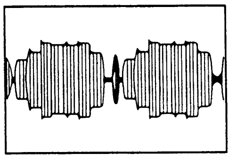
PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF9 IC1-55



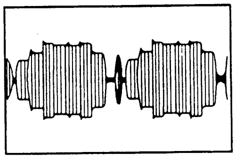
PB 0.6 Vp-p
20 mV/20 µsec/DIV

WF10-1 IC1-58



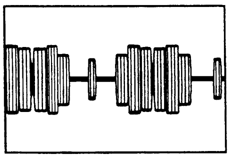
REC 0.36 Vp-p
10 mV/10 µsec/DIV

WF10-2 IC1-58



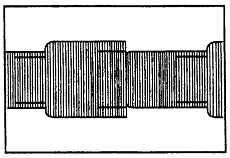
PB 0.46 Vp-p
10 mV/10 µsec/DIV

WF11-1 IC1-78



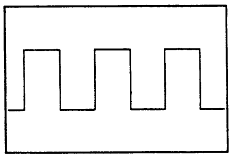
REC 0.66 Vp-p
20 mV/10 µsec/DIV

WF11-2 IC1-78



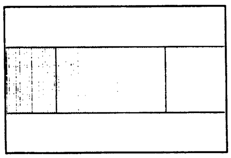
PB 0.24 Vp-p
10 mV/5 msec/DIV

WF12 IC-81



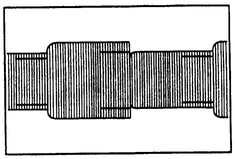
REC/PB 5.0 Vp-p
0.2 V/10 msec/DIV

WF13 IC1-87



REC 2.0 Vp-p
50 mV/1 msec/DIV

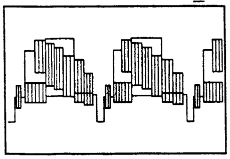
WF14 TP106
PB FM



PB 0.32 Vp-p
10 mV/5 msec/DIV

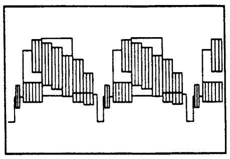
— ON SCREEN —

WF1 IC201-21
CV_IN



REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

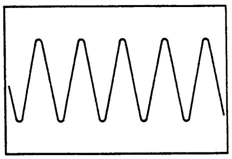
WF2 IC201-19
CVOUT



REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

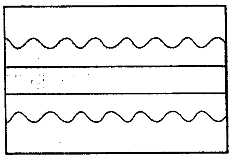
— FMA —

WF1 IC2201-9



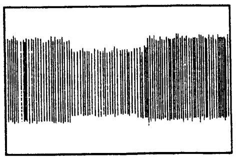
REC 0.11 Vp-p
2 mV/0.5 msec/DIV

WF2 IC2201-29



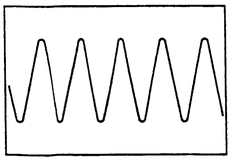
REC 0.52 Vp-p
10 mV/2 msec/DIV

WF3 IC2201-30



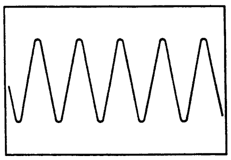
PB 0.64 Vp-p
20 mV/5 msec/DIV

WF4 IC2201-53



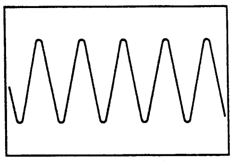
REC/PB 1.12 Vp-p
20 mV/0.5 msec/DIV

WF5 IC2201-61



REC 0.11 Vp-p
2 mV/0.5 msec/DIV

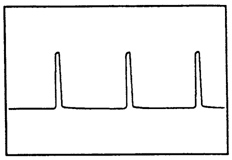
WF6 IC2601-3



REC/PB 0.9 Vp-p
20 mV/0.5 msec/DIV

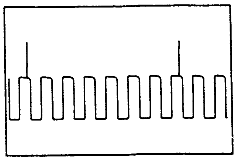
— SYSCON —

WF1 CN3001-4
D.PG



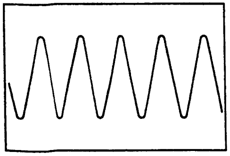
REC/PB 4.8 Vp-p
0.2 V/10 msec/DIV

WF2 CN3001-5
D.FG



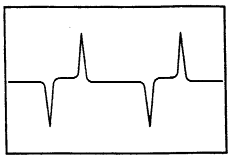
REC/PB 4.5 Vp-p
0.1 V/5 msec/DIV

WF3 CN3003-1
CAP_FG



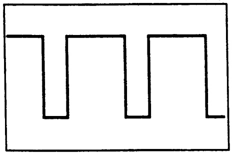
REC/PB 2.5 Vp-p
50 mV/0.5 msec/DIV

WF4 TP4001
CTL. P



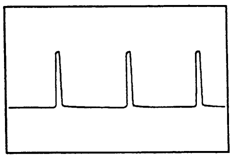
PB 2.0 Vp-p
50 mV/10 msec/DIV

WF5 IC3001-1
CTL(+)



REC 4.0 Vp-p
0.1 V/10 msec/DIV

WF6 IC3001-98
C.SYNC



REC/PB 4.1 Vp-p
0.1 V/20 µsec/DIV

COMPONENT PARTS LOCATION GUIDE <MAIN>

CAPACITOR

REF.NO.	LOCATION		
C1	A	D	11J
C2	B	C	14G
C3	B	C	14J
C5	B	C	14J
C6	B	C	13I
C7	A	D	13I
C9	B	C	14I
C11	B	C	14I
C12	B	C	14I
C13	A	D	14I
C14	B	C	13H
C15	B	C	13H
C16	B	C	14F
C17	B	C	15H
C18	B	C	15H
C19	B	C	15G
C20	A	D	14G
C21	B	C	14G
C23	B	C	14G
C24	B	C	14G
C25	B	C	14G
C27	B	C	14G
C29	A	D	14H
C30	A	D	14F
C31	B	C	13F
C32	B	C	12F
C33	B	C	12G
C34	B	C	12F
C36	B	C	13H
C37	A	D	12G
C38	B	C	13F
C39	B	C	13F
C41	B	C	12G
C42	B	C	11G
C43	B	C	11F
C44	B	C	11F
C45	B	C	11G
C46	B	C	11G
C47	B	C	11G
C48	A	D	11G
C49	B	C	11G
C51	B	C	11H
C54	A	D	11H
C55	A	D	10G
C56	A	D	10H
C57	B	C	10I
C58	B	C	10H
C59	B	C	10H
C60	B	C	10H
C61	B	C	10I
C62	B	C	10I
C63	B	C	10I
C64	A	D	11I
C65	B	C	11I
C66	B	C	12D
C73	B	C	12F
C74	B	C	13F
C75	B	C	16H
C76	B	C	15H
C77	B	C	16G
C78	B	C	16G
C79	B	C	16G
C80	B	C	16G
C81	B	C	14I
C82	B	C	14I
C83	B	C	14I
C84	B	C	13J
C85	B	C	15F
C86	A	D	15F
C87	B	C	15G
C88	B	C	15F
C89	B	C	16F
C90	B	C	15H
C92	B	C	10I
C98	B	C	10I
C99	B	C	11E
C101	B	C	10I
C105	B	C	9N
C107	B	C	13G
C110	B	C	9M
C111	B	C	9M
C112	B	C	9L
C113	B	C	9L
C114	B	C	9L
C115	B	C	10L
C116	B	C	10M
C117	B	C	10L
C118	B	C	10L
C119	B	C	14F
C120	B	C	15H
C129	B	C	15F
C130	B	C	15E
C131	B	C	15F
C134	B	C	11H
C136	B	C	13I
C137	B	C	13E
C138	B	C	13E
C139	B	C	13D
C140	B	C	13E
C141	B	C	14E
C142	B	C	14E
C143	B	C	5P
C144	B	C	15E
C153	B	C	13E
C154	B	C	12E
C163	B	C	15I
C164	B	C	14I
C165	B	C	15I
C168	A	D	11I
C176	B	C	17H
C182	B	C	12E
C183	B	C	12E
C191	B	C	15F
C193	B	C	12E
C201	A	D	4N
C202	B	C	5M
C203	B	C	5K
C204	B	C	5L
C205	B	C	5L
C206	B	C	4M
C207	B	C	4M
C208	B	C	4M
C209	B	C	3M
C210	B	C	3M
C211	B	C	3M
C212	B	C	3M
C213	A	D	3L
C214	B	C	3M
C215	B	C	3M
C216	A	D	2M
C217	B	C	4N
C218	B	C	4N
C219	B	C	3N
C220	B	C	4N
C222	B	C	4M
C223	B	C	3M
C224	B	C	3N
C225	B	C	4M
C226	B	C	4M
C301	B	C	18G
C302	A	D	18G
C303	B	C	18G
C304	B	C	18G
C305	B	C	17G
C307	B	C	17H
C308	B	C	17G
C309	B	C	17G
C310	B	C	17G
C311	B	C	17G
C312	B	C	16G
C313	B	C	17G
C314	B	C	17G
C315	B	C	17G
C316	B	C	17G
C317	B	C	17F
C318	B	C	18G
C319	B	C	18G
C320	B	C	18F
C321	B	C	18G
C322	B	C	18G
C323	A	D	17H
C2001	B	C	12I
C2002	A	D	13I
C2003	B	C	12J
C2004	A	D	12J
C2005	B	C	11K
C2006	B	C	12I
C2007	A	D	12J
C2008	B	C	12J
C2009	A	D	11J
C2010	A	D	13J
C2011	B	C	11I
C2012	B	C	11I
C2013	B	C	11I
C2015	A	D	10J
C2016	A	D	10J
C2017	B	C	11K
C2051	B	C	6K
C2052	A	D	6K
C2053	B	C	6L
C2054	B	C	6L
C2055	A	D	7L
C2101	B	C	11L
C2102	B	C	11L
C2103	B	C	11L
C2104	B	C	12L
C2105	B	C	12L
C2106	B	C	12L
C2107	B	C	12L
C2151	B	C	16L
C2152	B	C	14D
C2204	A	D	14N
C2205	A	D	13N
C2206	A	D	14M
C2207	A	D	13M
C2208	A	D	13L
C2209	A	D	13L
C2210	A	D	15K
C2211	A	D	15K
C2212	A	D	15K
C2213	A	D	15K
C2214	B	C	15L
C2215	A	D	16L
C2216	A	D	16L
C2217	A	D	16L
C2218	A	D	16M
C2219	A	D	16M
C2220	A	D	15N
C2223	B	C	15N
C2224	B	C	15N
C2225	A	D	15N
C2228	A	D	16M
C2229	A	D	16M
C2230	B	C	14M
C2231	B	C	14L
C2232	A	D	14K
C2233	B	C	14K
C2234	B	C	15L
C2251	B	C	13L
C2257	A	D	13L
C2258	B	C	14L
C2259	B	C	14L
C2260	B	C	14K
C2261	B	C	14L
C2601	A	D	12M
C2602	A	D	11M
C2603	B	C	12M
C2604	B	C	12N
C2605	A	D	12O
C2606	A	D	14O
C2607	A	D	13O
C2608	A	D	14O
C2609	A	D	13O
C2610	B	C	13O
C2611	A	D	12M
C2612	A	D	12N
C3001	B	C	4K
C3002	B	C	5J
C3003	A	D	5J
C3004	B	C	8I
C3007	B	C	2E
C3008	B	C	16E
C3010	A	D	2C
C3011	A	D	2C
C3012	A	D	3H
C3013	B	C	3H
C3014	A	D	5G
C3016	B	C	6E
C3017	B	C	5D
C3018	B	C	5D
C3019	B	C	6C
C3020	B	C	6D
C3021	B	C	6D
C3022	B	C	9C
C3023	A	D	9B
C3024	B	C	8D
C3025	A	D	8D
C3026	B	C	8D
C3027	A	D	8D
C3028	B	C	7D
C3029	B	C	7D
C3030	A	D	8D
C3031	B	C	7E
C3032	B	C	8E
C3033	B	C	7G
C3034	B	C	9E
C3035	B	C	9E
C3036	B	C	8E
C3037	B	C	8D
C3038	B	C	8F
C3039	B	C	9F
C3040	B	C	4E
C3041	B	C	7D
C3042	A	D	2G
C3046	B	C	5D
C3047	B	C	5D
C3048	B	C	5D
C3050	B	C	5K
C3051	B	C	4K
C3052	B	C	4E
C3070	B	C	5J
C3071	B	C	4J
C3072	B	C	13B
C3073	B	C	7B
C3110	B	C	5G
C3200	B	C	12D
C3201	B	C	12D
C3312	B	C	18A
C3313	B	C	19A
C3314	B	C	19B
C3321	B	C	19B
C3322	B	C	19B
C3323	B	C	19B
C3333	B	C	20C
C3345	B	C	19D
C3346	B	C	19D
C3347	B	C	19D
C3400	B	C	18A
C3401	A	D	19A
C3416	B	C	20B
C3446	A	D	19D
C3456	B	C	21E
C4001	A	D	6G
C4002	B	C	6G
C4003	B	C	5G
C4004	A	D	5H
C4005	B	C	5G
C4006	A	D	5G
C4007	B	C	6G
C4008	B	C	5G
C4009	B	C	5G
C4010	B	C	5H
C4011	B	C	7G
C4012	B	C	7H
C4013	B	C	7G
C4014	B	C	7G
C4015	B	C	6G
C5306	A	D	1O
C5307	A	D	1O
C5308	A	D	2G
C5309	A	D	1G
C5501	A	D	22N
C5502	A	D	20N
C5503	A	D	19P
C6005	A	D	17M
C6006	B	C	18M
C6007	A	D	17M
C6008	B	C	18M
C6012	A	D	18O
C6013	B	C	18P
C6014	B	C	18P
C6016	B	C	18O
C6020	B	C	18N
C6021	B	C	18N
C6022	B	C	18N
C6023	B	C	18M
C6024	B	C	18K
C6032	B	C	21K
C6033	B	C	19K
C6036	B	C	20I
C6037	A	D	21K
C6052	B	C	18O
C6053	B	C	18P
C6054	B	C	18P
C6055	B	C	18O
C6080	B	C	22K
C6202	A	D	21P
C6203	A	D	21N
C6204	A	D	21O
C6205	B	C	20L
C6206	B	C	20L
C6207	B	C	20O
C6208	B	C	21L
C6209	B	C	21M
C6210	B	C	21M
C6212	A	D	21L
C6214	A	D	20M
C6217	A	D	21N
C6221	A	D	22L
C6222	A	D	21M
C6223	A	D	21L
C6227	B	C	20M
C6228	A	D	21M
C6230	B	C	20O
C6231	A	D	19M
C6233	B	C	22N
C6234	B	C	21P
C6235	B	C	20O
C6238	A	D	22P
C6239	A	D	21O
C6240	B	C	22P
C6519	B	C	20H
C6520	B	C	21H
C6551	A	D	21E
C6552	B	C	21E
C6553	A	D	21F
C6554	B	C	21F
C7501	B	C	21B

CONNECTOR

REF.NO.	LOCATION		
CN1	A	D	12K
CN101	A	D	11O
CN102	A	D	7O
CN606	A	D	9L
CN607	A	D	11L
CN1901	A	D	22C
CN2001	A	D	7K
CN2002	A	D	6K
CN2601	A	D	2N
CN3001	A	D	3K
CN3002	A	D	4K
CN3003	A	D	8J
CN3004	A	D	5B
CN3011	A	D	1C
CN3601	A	D	2H
CN3602	A	D	1D
CN3603	A	D	2D
CN3604	A	D	2H
CN3605	A	D	1F
CN3606	A	D	2L
CN6101	A	D	22C
CN6202	A	D	22M
CN6701	A	D	21G
CN7501	A	D	4P
CN7502	A	D	7P
CN7503	A	D	14P
CN7504	A	D	21A
CN7505	A	D	17P

DIODE

REF.NO.	LOCATION		
D16	B	C	14H
D17	B	C	12K
D24	B	C	15J
D101	B	C	8N
D201	B	C	3E
D202	B	C	3L
D203	B	C	3L
D204	B	C	4L
D205	B	C	3C
D206	B	C	2K
D2001	A	D	12J
D2201	A	D	15L
D2601	A	D	10M
D2602	A	D	10M
D3001	A	D	10E
D3002	A	D	7A
D3003	A	D	3F
D3004	A	D	3H
D3005	A	D	2H
D3007	A	D	4D
D3008	B	C	4C
D4001	B	C	8G
D4002	B	C	7H
D5305	A	D	4I
D5306	B	C	2G
D5501	A	D	22P
D5502	A	D	20N
D6002	A	D	17L
D6201	A	D	20O
D6202	A	D	20O
D6551	A	D	21F

IC

REF.NO.	LOCATION		
IC1	B	C	12H
IC2	B	C	15G
IC3	B	C	13E
IC4	B	C	14E
IC201	A	D	4M
IC301	A	D	18F
IC2201	B	C	15M
IC2601	B	C	11N
IC2602	B	C	12N
IC2603	A	D	12O
IC3001	B	C	6F
IC3002	B	C	8D
IC3003	A	D	9B
IC3004	A	D	5J
IC3005	B	C	12C
IC3301	B	C	18C
IC3401	B	C	20B
IC3402	B	C	19E
IC3403	B	C	20D
IC6080	B	C	22K
IC6201	A	D	22P

COIL

REF.NO.	LOCATION		
L1	A	D	13J
L2	A	D	15G
L3	A	D	15H
L4	A	D	13D
L5	A	D	13F
L6	A	D	13F
L7	A	D	11G
L8	A	D	10I
L9	A	D	12D
L12	A	D	15G
L13	A	D	16G
L14	A	D	9I
L16	A	D	16H
L17	A	D	13G
L18	A	D	13G
L23	A	D	11F
L151	A	D	13F
L181	A	D	12E
L201	A	D	5M
L202	A	D	4L
L203	A	D	4L
L204	A	D	2M
L205	A	D	3M
L206	A	D	3N
L301	A	D	17H
L302	A	D	17G
L303	A	D	17F
L2001	A	D	13J
L2201	A	D	15K
L2251	A	D	13L
L2252	A	D	14K
L3001	A	D	5I
L3002	A	D	4K
L3003	A	D	5K
L6001	A	D	18N
L6002	A	D	18P
L6003	A	D	17P
L6004	A	D	17P
L6031	A	D	21K
L6032	A	D	19K
L6050	A	D	19P
L6051	A	D	18P
L6080	A	D	21K
L6201	A	D	21O
L6202	A	D	21N
L6203	A	D	21O
L6204	A	D	22L
L6208	A	D	20M

TRANSISTOR

REF.NO.	LOCATION		
Q1	B	C	14G
Q6	B	C	12F
Q13	B	C	16H
Q14	B	C	16G
Q15	B	C	16F
Q16	B	C	15F
Q17	B	C	15G
Q18	B	C	9I
Q19	B	C	15I
Q20	B	C	15I
Q21	B	C	11E
Q26	B	C	13G
Q27	B	C	14F
Q34	B	C	14I
Q35	B	C	14I
Q36	B	C	14J
Q37	B	C	13J
Q47	B	C	15F
Q48	B	C	14E
Q49	B	C	14G
Q55	B	C	15G
Q101	B	C	9H
Q102	B	C	8N
Q103	B	C	15E
Q104	B	C	15E
Q140	B	C	15E
Q141	B	C	15E
Q152	B	C	15H
Q157	B	C	12D
Q158	B	C	12E
Q159	B	C	12F
Q160	B	C	16E
Q203	B	C	3B
Q204	B	C	5K
Q207	B	C	3N
Q208	B	C	3O
Q301	B	C	17H
Q302	B	C	18F
Q311	B	C	18H
Q312	B	C	18H
Q2001	B	C	7L
Q2002	B	C	7L
Q2003	B	C	6L
Q2051	B	C	6L
Q2052	B	C	6L
Q2053	B	C	6L
Q2054	B	C	6L
Q2055	B	C	6L
Q2151	B	C	14D
Q2152	B	C	14D
Q2253	B	C	14K
Q2601	B	C	10M
Q2602	B	C	10M
Q2603	B	C	10N
Q2604	B	C	9N
Q2605	B	C	10N
Q2606	B	C	10N
Q2607	B	C	10N
Q2608	B	C	9N
Q3001	B	C	4J
Q3002	A	D	3E
Q3003	A	D	17E
Q3004	B	C	3F
Q3005	B	C	3I
Q3008	B	C	4C
Q3009	B	C	4C
Q3050	B	C	12C
Q4001	B	C	5H
Q5301	A	D	3I
Q5302	B	C	3J
Q5303	A	D	1O
Q5304	A	D	1G
Q5305	B	C	1G
Q5307	B	C	2G
Q5501	A	D	22O
Q5502	B	C	22O
Q5503	B	C	22O
Q5504	A	D	20O
Q5505	B	C	20N
Q5506	B	C	19N
Q5507	B	C	19O
Q5508	A	D	19P
Q6030	B	C	19K
Q6031	B	C	19K
Q6032	B	C	20H
Q6033	B	C	20I
Q6035	B	C	20I
Q6501	B	C	20H
Q6502	B	C	20H
Q6551	A	D	21F

RESISTOR

REF.NO.	LOCATION		
R1	B	C	15H
R2	B	C	14G
R3	B	C	14G
R4	B	C	14G
R5	B	C	14H
R6	B	C	14G
R7	B	C	13F
R10	B	C	13F
R11	B	C	13F
R12	B	C	14F
R13	B	C	12G
R14	B	C	13G
R15	B	C	11G
R16	B	C	11F
R20	B	C	10H
R23	B	C	9H
R24	B	C	11I
R25	B	C	10I
R46	B	C	16H
R47	B	C	16H
R48	B	C	16H
R49	B	C	16H
R50	B	C	16G
R52	B	C	12J
R54	B	C	16F
R55	B	C	16G
R56	B	C	11G
R57	B	C	15H
R59	B	C	12F
R60	B	C	9O
R62	B	C	10H
R63	B	C	10I
R64	B	C	9I
R68	B	C	13F
R69	B	C	13F
R71	B	C	15G
R73	B	C	9O
R74	B	C	10J
R75	B	C	12F
R94	B	C	16F
R95	B	C	6O
R96	B	C	6O
R97	B	C	10O
R98	B	C	10O
R99	B	C	11F
R101	B	C	9H
R112	B	C	14F
R116	B	C	13G
R120	B	C	15I
R121	B	C	15J
R122	B	C	15I
R126	B	C	15F
R127	B	C	15E
R128	B	C	15F
R129	B	C	15F
R130	B	C	16F
R137	B	C	13H
R140	B	C	15D
R151	B	C	16F
R159	B	C	13E
R161	B	C	12E
R162	B	C	12E
R163	B	C	12E
R164	B	C	12F
R165	B	C	12E
R166	B	C	12F
R168	B	C	14F
R169	B	C	14E
R170	B	C	13G
R171	B	C	14G
R172	B	C	15E
R178	B	C	14G
R179	B	C	14G
R181	B	C	8N
R182	B	C	8N
R195	B	C	10H
R197	B	C	10H
R201	B	C	4L
R202	B	C	3L
R203	B	C	3L
R204	B	C	3L
R205	B	C	2L
R206	B	C	4L
R207	B	C	4L
R208	B	C	4L
R209	B	C	3L
R210	B	C	3L
R211	B	C	3M
R212	B	C	3N
R213	B	C	4N
R215	B	C	5N
R216	B	C	5M
R217	B	C	5M
R218	B	C	3N
R219	B	C	5L
R220	B	C	5N
R223	B	C	4N
R224	B	C	3N
R225	B	C	3O
R301	B	C	18H
R302	B	C	18H
R303	B	C	17H
R304	B	C	17H
R305	B	C	17H
R306	B	C	17G
R307	B	C	16G
R308	B	C	17G
R309	B	C	16F
R310	B	C	17G
R311	B	C	17F
R312	B	C	18G
R313	B	C	18G
R314	B	C	18F
R315	B	C	18F
R316	B	C	18F
R321	B	C	18H
R326	B	C	17G
R327	B	C	18F
R328	B	C	17F
R329	B	C	18G
R2001	B	C	12J
R2002	B	C	12J
R2003	B	C	12I
R2004	B	C	12J
R2005	B	C	12J
R2006	B	C	11K
R2007	B	C	11K
R2009	B	C	11J
R2010	B	C	11J
R2013	B	C	11J
R2014	B	C	11J
R2018	B	C	6L
R2019	B	C	7L
R2020	B	C	11K
R2051	B	C	6K
R2052	B	C	6K
R2053	B	C	6K
R2054	B	C	6L
R2055	B	C	6K
R2056	B	C	6L
R2057	B	C	6L
R2058	B	C	6L
R2059	B	C	6L
R2060	B	C	6L
R2151	B	C	14D
R2152	B	C	14D
R2201	B	C	14N
R2202	B	C	14N
R2203	B	C	14N
R2204	B	C	14N
R2206	B	C	13M
R2207	B	C	13M
R2208	B	C	13M
R2209	B	C	13M
R2210	B	C	13M
R2211	B	C	13M
R2212	B	C	14M
R2213	B	C	13M
R2214	B	C	13M
R2215	B	C	13M
R2216	B	C	13M
R2217	B	C	13M
R2218	B	C	15N
R2219	B	C	16N
R2220	B	C	16N
R2221	B	C	16N
R2222	B	C	16N
R2225	B	C	15N
R2226	B	C	15N
R2227	B	C	15N
R2232	B	C	16M
R2233	B	C	16M
R2234	B	C	16M
R2235	B	C	16M
R2236	B	C	13M
R2237	B	C	13L
R2238	B	C	14K
R2239	B	C	15K
R2240	B	C	15K
R2244	B	C	15N
R2251	B	C	15K
R2252	B	C	14K
R2254	B	C	14K
R2601	B	C	10N
R2602	B	C	10M
R2603	B	C	10M
R2604	B	C	10M
R2605	B	C	11N
R2606	B	C	11N
R2607	B	C	11M
R2608	B	C	11N
R2609	B	C	12O
R2610	B	C	13O
R2611	B	C	12O
R2612	B	C	13O
R2613	B	C	12O
R2614	B	C	13O
R2615	B	C	12O
R2616	B	C	14O
R2617	B	C	13P
R2618	B	C	13P
R2619	B	C	13O
R2620	B	C	9M
R2621	B	C	12M
R2622	B	C	12N
R3011	B	C	4G
R3012	B	C	4G
R3013	B	C	5G
R3014	B	C	4G
R3015	B	C	5G
R3016	B	C	4G
R3017	B	C	5F
R3018	B	C	4F
R3019	B	C	4F
R3020	B	C	5F
R3021	B	C	5F
R3022	B	C	5F
R3024	B	C	4F
R3025	B	C	4F
R3026	B	C	4F
R3027	B	C	4F
R3029	B	C	5F
R3030	B	C	5F
R3031	B	C	5E
R3033	B	C	5E
R3034	B	C	5E
R3035	B	C	4E
R3036	B	C	4D
R3037	B	C	5E
R3038	B	C	4E
R3039	B	C	5E
R3040	B	C	5E
R3041	B	C	5E
R3042	B	C	4D
R3044	B	C	5D
R3046	B	C	5D
R3047	B	C	5D
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R3058	B	C	7D
R3059	B	C	7C
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R3061	B	C	7D
R3062	B	C	7D
R3063	B	C	7D
R3066	B	C	8D
R3069	B	C	7E
R3071	B	C	8D
R3072	B	C	9D
R3073	B	C	9D
R3074	B	C	9C
R3075	B	C	9E
R3076	B	C	9E
R3077	B	C	9D
R3078	B	C	9D
R3079	B	C	9D
R3080	B	C	9D
R3081	B	C	9E
R3083	B	C	8E
R3085	B	C	8F
R3086	B	C	8F
R3087	B	C	9F
R3088	B	C	9F
R3089	B	C	8F
R3090	B	C	9F
R3091	B	C	8F
R3092	B	C	8F
R3093	B	C	8F
R3094	B	C	8F
R3095	B	C	8G
R3096	B	C	8F
R3097	B	C	8G
R3103	B	C	7G
R3104	B	C	7G
R3105	B	C	7H
R3106	B	C	7G
R3201	B	C	5J
R3202	B	C	4I
R3203	B	C	4I
R3204	B	C	4J
R3205	A	D	10D
R3206	B	C	4G
R3207	B	C	3C
R3208	B	C	14B
R3209	B	C	13A
R3210	B	C	7B
R3211	B	C	7B
R3212	B	C	3G
R3213	B	C	6A
R3214	B	C	3B
R3215	B	C	3B
R3216	B	C	3B
R3217	B	C	3E
R3218	B	C	2I
R3219	B	C	3F
R3220	B	C	2F
R3222	B	C	3H
R3223	B	C	9C
R3224	B	C	9C
R3225	B	C	18A
R3226	B	C	6D
R3227	B	C	4F
R3228	B	C	7D
R3229	B	C	7E
R3230	B	C	8D
R3231	B	C	8D
R3232	B	C	4F
R3233	B	C	4C
R3234	B	C	4C
R3235	B	C	12C
R3236	B	C	12C
R3237	B	C	2B
R3238	B	C	2C
R3240	B	C	2B
R3241	B	C	4B
R3242	B	C	4F
R3243	B	C	7D
R3244	B	C	6C
R3246	B	C	4F
R3247	B	C	5F
R3251	B	C	2B
R3252	B	C	4G
R3253	B	C	2D
R3260	B	C	12C
R3261	B	C	12C
R3262	B	C	12C
R3302	B	C	18A
R3303	B	C	18A
R3312	B	C	19B
R3313	B	C	19A
R3321	B	C	19B
R3322	B	C	19B
R3323	B	C	19B
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R3328	B	C	20C
R3329	B	C	20C
R3330	B	C	20C
R3331	B	C	19C
R3332	B	C	20C
R3333	B	C	19C
R3339	B	C	19D
R3340	B	C	19C
R3342	B	C	19D
R3343	B	C	19D
R3345	B	C	19D
R3346	B	C	19D
R3347	B	C	18D
R3348	B	C	18D
R3349	B	C	21D
R3350	B	C	18D
R3351	B	C	18D
R3352	B	C	18D
R3353	B	C	18E
R3355	B	C	18E
R3356	B	C	17D
R3357	B	C	17D
R3358	B	C	17D
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R3361	B	C	17D
R3362	B	C	17D
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R3365	B	C	16D
R3366	B	C	17D
R3368	B	C	17C
R3369	B	C	16C
R3370	B	C	16C
R3371	B	C	16C
R3372	B	C	16C
R3373	B	C	16C
R3374	B	C	16C
R3375	B	C	16C
R3376	B	C	16B
R3377	B	C	16C
R3378	B	C	17B
R3379	B	C	16B
R3380	B	C	17B
R3381	B	C	15B
R3382	B	C	15B
R3383	B	C	15B
R3387	B	C	17B
R3388	B	C	16B
R3389	B	C	17B
R3390	B	C	16B
R3401	B	C	20B
R3402	B	C	20B
R3404	B	C	20B
R3405	B	C	3A
R3412	B	C	20C
R3414	B	C	20C
R3415	B	C	20C
R3432	B	C	19E
R3433	B	C	19E
R3435	B	C	19E
R3439	B	C	18D
R3442	B	C	19E
R3461	B	C	15B
R3462	B	C	16B
R3463	B	C	16B
R3464	B	C	16B
R3465	B	C	19D
R3466	B	C	20D
R3467	B	C	16B
R3468	B	C	16B
R4001	B	C	7H
R4002	B	C	6G
R4003	B	C	6G
R4004	B	C	6G
R4005	B	C	6G
R4006	B	C	6G
R4007	B	C	5G
R4008	B	C	4E
R4009	B	C	7G
R4010	B	C	8G
R4011	B	C	8G
R4012	B	C	7G
R4013	B	C	7H
R4014	B	C	8G
R4015	B	C	7H
R4016	B	C	8G
R4017	B	C	7H
R4018	B	C	7H
R4019	B	C	6H
R4020	B	C	4G
R4021	B	C	6H
R5308	B	C	2I
R5309	B	C	3I
R5315	B	C	2G
R5319	A	D	1O
R5320	B	C	1O
R5321	B	C	1G
R5322	B	C	1G
R5501	B	C	22P
R5502	A	D	19O
R5503	B	C	20O
R5504	B	C	20N
R5505	B	C	20N
R5506	B	C	20O
R5507	B	C	20O
R5508	B	C	19P
R5509	B	C	19P
R6020	B	C	18N
R6021	B	C	18M
R6022	B	C	18N
R6023	B	C	18M
R6025	B	C	17N
R6030	B	C	19K
R6031	B	C	19K
R6032	B	C	21K
R6033	B	C	21K
R6034	B	C	19K
R6035	B	C	20I
R6037	B	C	20I
R6038	B	C	18L
R6039	B	C	20I
R6050	B	C	18O
R6051	B	C	19P
R6052	B	C	18O
R6053	B	C	18P
R6080	B	C	21K
R6081	B	C	22K
R6082	B	C	22K
R6201	B	C	20M
R6202	B	C	20L
R6203	B	C	21P
R6204	B	C	21P
R6221	B	C	20M
R6222	B	C	20O
R6508	B	C	20H
R6509	B	C	20H
R6510	B	C	20H
R6511	B	C	21H
R6551	B	C	21F
R6552	B	C	21E
R6553	B	C	21G
R6554	B	C	21G
R7501	B	C	21A
R7502	B	C	21A
R7503	B	C	20A
R7504	B	C	7P

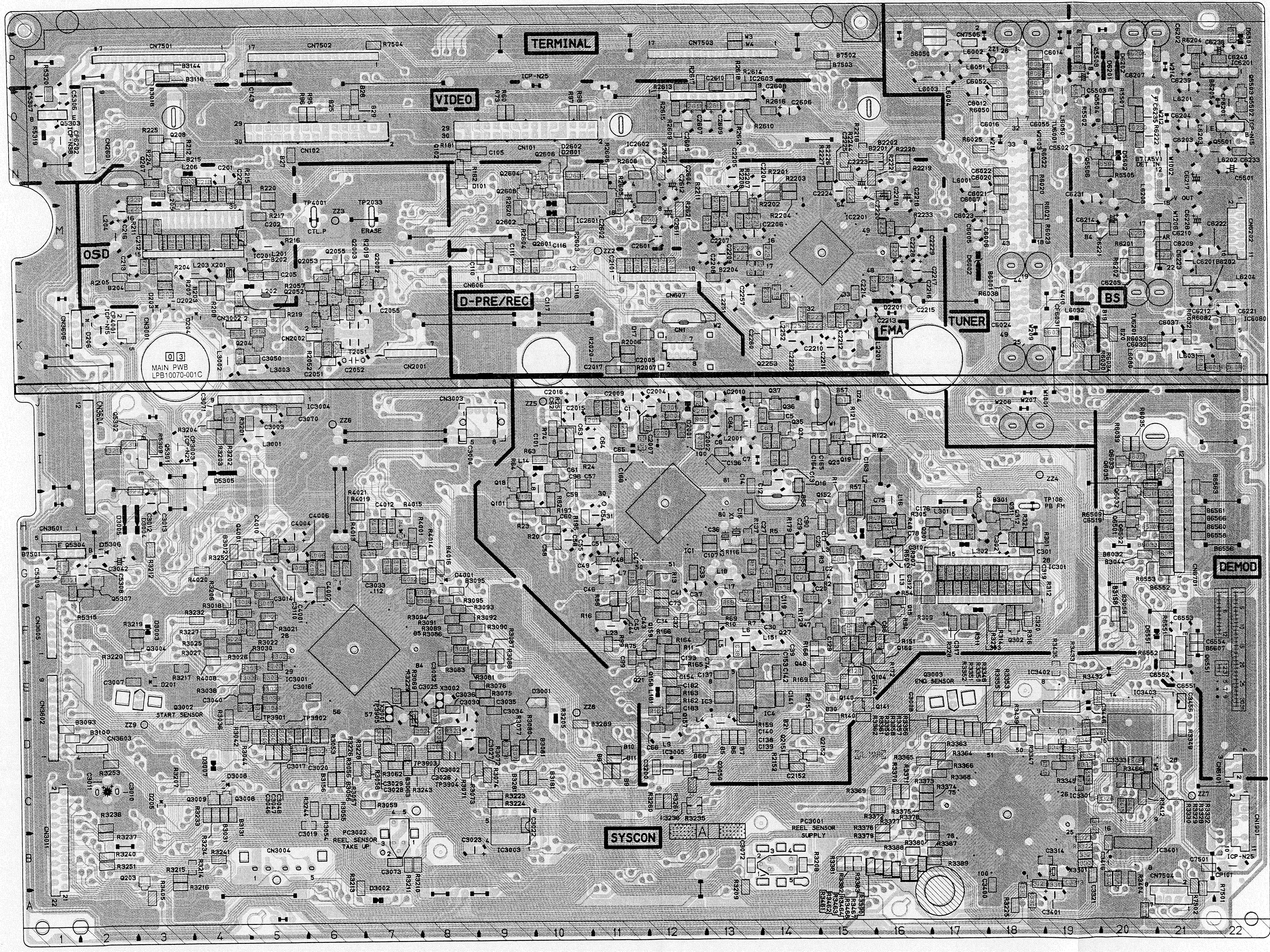
TEST POINT

REF.NO.	LOCATION		
TP106	A	D	18H
TP2033	A	D	7M
TP3901	B	C	5D
TP3902	B	C	5D
TP3903	B	C	7D
TP3904	B	C	8C
TP3905	B	C	7E
TP4001	A	D	6M

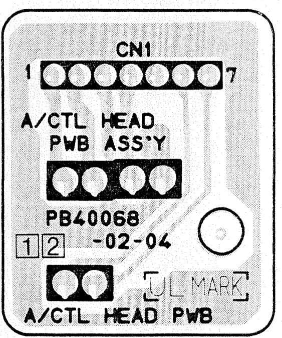
OTHER

REF.NO.	LOCATION		
CF6031	A	D	19K
CP101	A	D	22B
CP3003	A	D	3I
CP4001	A	D	2K
CP6201	A	D	22O
CP6202	A	D	1N
LC6201	A	D	21L
PC3001	A	D	14B
PC3002	A	D	7B
S6050	A	D	17P
T2051	A	D	6K
TU6001	A	D	18P
TU6201	A	D	20P
X1	A	D	13H
X2	A	D	13H
X201	A	D	4L
X3001	A	D	7E
X3002	A	D	8E
X3301	A	D	19B

4.27 MAIN AND A/C HEAD CIRCUIT BOARDS

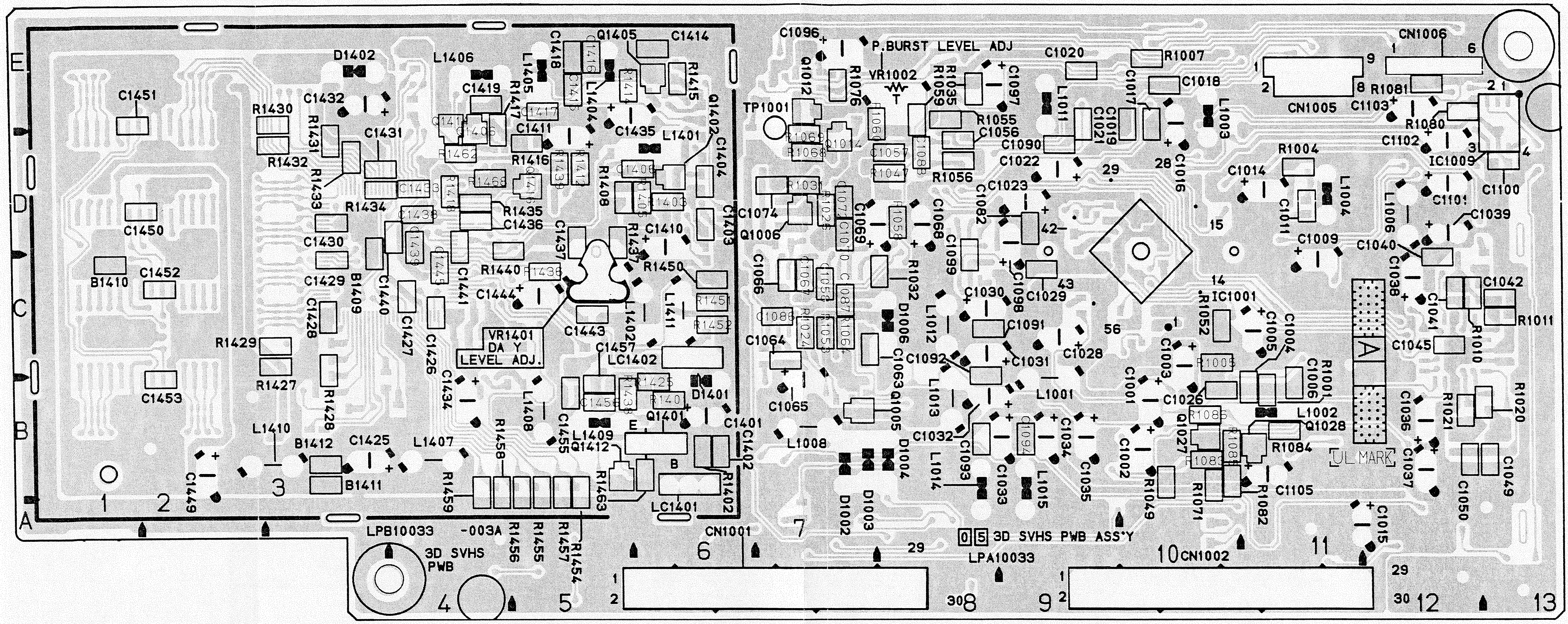

TERMINAL
VIDEO
OSD
D-PRE/REC
TUNER
BS
FMA
DEMOD
SYSCON
MAIN PWB
LPB10070-001C

— A/C HEAD —


CN1
1
7
A/CTL HEAD
PWB ASS'Y
PB40068
1 2 -02-04
A/CTL HEAD PWB

4.28 3D SVHS CIRCUIT BOARD

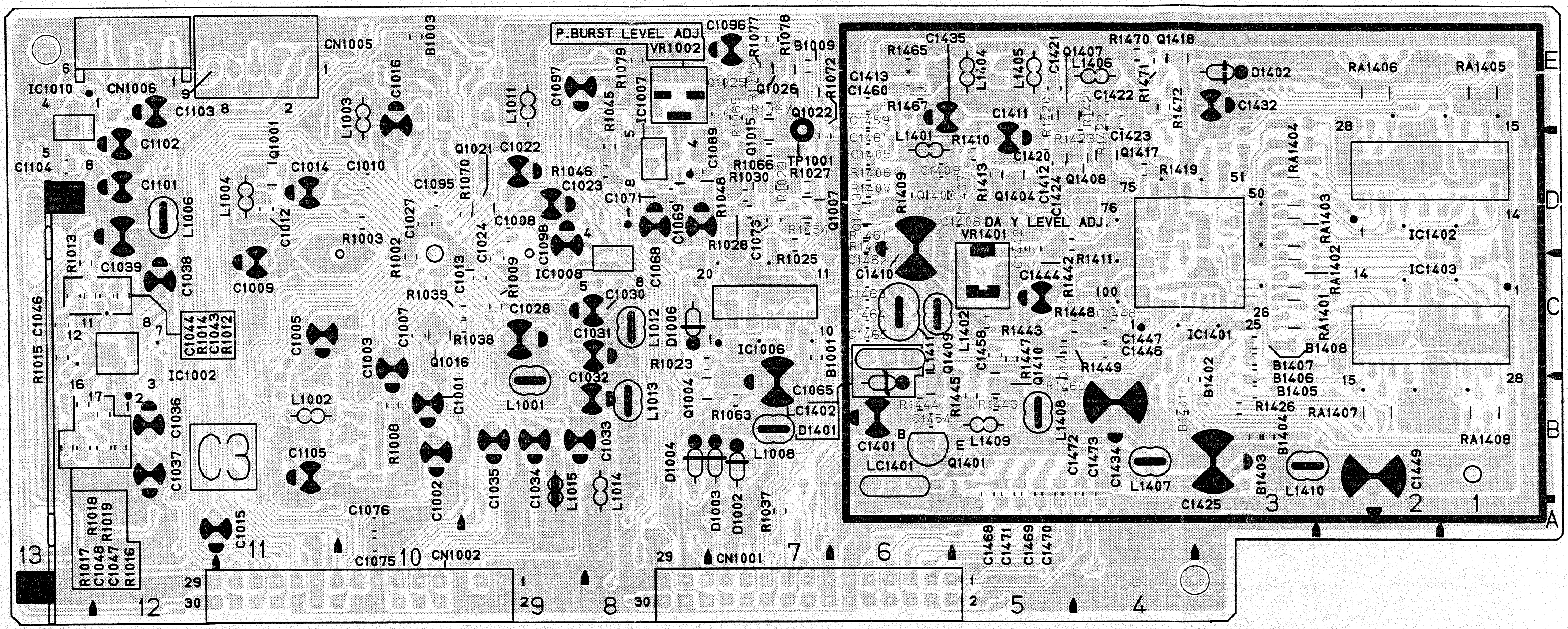
— FOIL SIDE (B) —



COMPONENT PARTS LOCATION GUIDE <3D SVHS>

REF.NO.	LOCATION		
CAPACITOR			
C1001	A	D	10B
C1002	A	D	10B
C1003	A	D	10C
C1004	B	C	11B
C1005	A	D	11C
C1006	B	C	11B
C1007	A	C	10C
C1008	A	C	9D
C1009	A	D	11C
C1010	A	C	10D
C1011	B	C	11D
C1012	A	C	11D
C1013	A	C	9C
C1014	A	D	11D
C1015	A	D	12A
C1016	A	D	10D
C1017	B	C	10E
C1018	B	C	10E
C1019	B	C	10E
C1020	B	C	9E
C1021	B	C	9E
C1022	A	D	9D
C1023	A	D	9D
C1024	A	C	9C
C1026	B	C	10B
C1027	A	C	10D
C1028	A	D	9C
C1029	B	C	9C
C1030	A	D	8C
C1031	A	D	9C
C1032	A	D	9B
C1033	A	D	9B
C1034	A	D	9B
C1035	A	D	9B
C1036	A	D	12B
C1037	A	D	12B
C1038	A	D	12C
C1039	A	D	12D
C1040	B	C	12C
C1041	B	C	12C
C1042	B	C	13C
C1043	A	C	12C
C1044	A	C	13C
C1045	B	C	12C
C1046	A	C	13C
C1047	A	C	12B
C1048	A	C	13B
C1049	B	C	13B
C1050	B	C	12B
C1056	B	C	8D
C1057	B	C	8D
C1058	B	C	7C
C1063	B	C	7C
C1064	B	C	7C
C1065	A	D	7B
C1066	B	C	7C
C1067	B	C	7C
C1068	A	D	8D
C1069	A	D	8D
C1070	B	C	7D
C1071	A	C	8D
C1072	B	C	7D
C1073	A	C	7D
C1074	B	C	7D
C1075	A	C	10A
C1076	A	C	10A
C1082	B	C	9D
C1086	B	C	7C
C1087	B	C	7C
C1088	B	C	8D
C1089	A	C	7E
C1090	B	C	9D
C1091	B	C	8C
C1092	B	C	8B
C1093	B	C	8B
C1094	B	C	9B
C1095	A	C	10D
C1096	A	D	7E
C1097	A	D	9E
C1098	A	D	9C
C1099	B	C	8C
C1100	B	C	13D
C1101	A	D	12D
C1102	A	D	12D
C1103	A	D	12E
C1104	A	C	13D
C1105	A	D	11B
C1401	A	D	6B
C1402	B	C	6B
C1403	B	C	6D
C1404	B	C	6D
C1405	A	C	6D
C1406	B	C	6D
C1407	A	C	5D
C1408	A	C	5D
C1409	A	C	6D
C1410	A	D	6D
C1411	A	D	5D
C1412	A	C	5D
C1413	A	C	6E
C1414	B	C	6E
C1415	B	C	5E
C1416	B	C	5E
C1417	B	C	5E
C1418	B	C	5E
C1419	B	C	4E
C1420	A	C	5D
C1421	A	C	5E
C1422	A	C	4E
C1423	A	C	4E
C1424	A	C	5D
C1425	A	D	3B
C1426	B	C	4C
C1427	B	C	4C
C1428	B	C	3C
C1429	B	C	3C
C1430	B	C	3D
C1431	B	C	3D
C1432	A	D	3E
C1433	B	C	4D
C1434	A	D	4B
C1435	A	D	5E
C1436	B	C	4D
C1437	B	C	5D
C1438	B	C	4D
C1439	B	C	4D
C1440	B	C	4D
C1441	B	C	4D
C1442	A	C	5D
C1443	B	C	5C
C1444	A	D	5C
C1445	B	C	4C
C1446	A	C	4C
C1447	A	C	4C
C1448	A	C	4C
C1449	A	D	2B
C1450	B	C	2D
C1451	B	C	1E
C1452	B	C	2C
C1453	B	C	2B
C1454	A	C	6B
C1455	B	C	5B
C1456	B	C	5B
C1457	B	C	5B
C1458	A	C	5C
C1459	A	C	6E
C1460	A	C	6E
C1461	A	C	6D
C1462	A	C	6C
C1463	A	C	6C
C1464	A	C	6C
C1465	A	C	6C
C1468	A	C	5B
C1469	A	C	5B
C1470	A	C	5B
C1471	A	C	5B
C1472	A	C	5B
C1473	A	C	4B
CONNECTOR			
CN1001	A	D	6A
CN1002	A	D	9A
CN1005	A	D	11E.
CN1006	A	D	12E
DIODE			
D1002	A	D	7B
D1003	A	D	7B
D1004	A	D	8B
D1006	A	D	8C
D1401	A	D	6B
D1402	A	D	3E
IC			
IC1001	B	C	10D
IC1002	A	C	12C
IC1006	A	C	7C
IC1007	A	C	8D
IC1008	A	C	8C
IC1009	B	C	13E
IC1010	A	C	13E
IC1401	A	C	4D
IC1402	A	C	2D
IC1403	A	C	2C
COIL			
L1001	A	D	9B
L1002	A	D	11B
L1003	A	D	10D
L1004	A	D	11D
L1006	A	D	12D
L1008	A	D	7B
L1011	A	D	9E
L1012	A	D	8C
L1013	A	D	8B
L1014	A	D	8A
L1015	A	D	9A
L1401	A	D	6D
L1402	A	D	6C
L1404	A	D	5E
L1405	A	D	5E
L1406	A	D	4E
L1407	A	D	4B
L1408	A	D	5B
L1409	A	D	5B
L1410	A	D	3B
L1411	A	D	6C
TRANSISTOR			
Q1001	A	C	11D
Q1004	A	C	8B
Q1005	B	C	7B
Q1006	B	C	7D
Q1007	A	C	7D
Q1012	B	C	7E
Q1014	B	C	7D
Q1015	A	C	7E
Q1016	A	C	10C
Q1021	A	C	9D
Q1022	A	C	7E
Q1025	A	C	7E
Q1026	A	C	7E
Q1027	B	C	10B
Q1028	B	C	11B
Q1401	A	D	6B
Q1402	B	C	6D
Q1403	A	C	6D
Q1404	A	C	5D
Q1405	B	C	6E
Q1406	B	C	4D
Q1407	A	C	5E
Q1408	A	C	4D
Q1409	A	C	6B
Q1410	A	C	5B
Q1411	A	C	5C
Q1412	B	C	5B
Q1413	A	C	6D
Q1414	B	C	4D
Q1416	B	C	5D
Q1417	A	C	4D
Q1418	A	C	4E
RESISTOR			
R1001	B	C	11B
R1002	A	C	10C
R1003	A	C	10D
R1004	B	C	11D
R1005	B	C	10C
R1007	B	C	10E
R1008	A	C	10B
R1009	A	C	9C
R1010	B	C	12C
R1011	B	C	13C
R1012	A	C	12C
R1013	A	C	13C
R1014	A	C	13C
R1015	A	C	13C
R1016	A	C	12B
R1017	A	C	13B
R1018	A	C	13B
R1019	A	C	12B
R1020	B	C	13B
R1021	B	C	12B
R1023	A	C	8C
R1024	B	C	7C
R1025	A	C	7D
R1026	B	C	7D
R1027	A	C	7D
R1028	A	C	7D
R1029	A	C	7D
R1030	A	C	7D
R1031	B	C	7D
R1032	B	C	8C
R1035	B	C	8E
R1037	A	C	7A
R1038	A	C	9C
R1039	A	C	9C
R1045	A	C	8D
R1046	A	C	8D
R1047	B	C	8D
R1048	A	C	8D
R1049	B	C	10B
R1052	B	C	10C
R1053	B	C	7C
R1054	A	C	7D
R1055	B	C	8E
R1056	B	C	8D
R1058	B	C	8D
R1059	B	C	8E
R1060	B	C	8E
R1063	A	C	7B
R1064	B	C	7C
R1065	A	C	7E
R1066	A	C	7D
R1067	A	C	7E
R1068	B	C	7D
R1069	B	C	7D
R1070	A	C	9D
R1071	B	C	10B
R1072	A	C	7D
R1075	A	C	7E
R1076	B	C	7E
R1077	A	C	7E
R1078	A	C	7E
R1079	A	C	8E
R1080	B	C	12E
R1081	B	C	12E
R1082	B	C	10B
R1083	B	C	10B
R1084	B	C	11B
R1085	B	C	10B
R1086	B	C	10B
R1401	B	C	6B
R1402	B	C	6B
R1403	B	C	6D
R1404	A	C	6D
R1405	B	C	6D
R1406	A	C	6D
R1407	A	C	6D
R1408	B	C	5D
R1409	A	C	6D
R1410	A	C	5D
R1411	A	C	5D
R1412	B	C	5D
R1413	A	C	5D
R1414	B	C	6E
R1415	B	C	6E
R1416	B	C	5D
R1417	B	C	4D
R1418	B	C	4D
R1419	A	C	4D
R1420	A	C	5E
R1421	A	C	4E
R1422	A	C	4E
R1423	A	C	4D
R1425	B	C	6B
R1426	A	C	3B
R1427	B	C	3C
R1428	B	C	3C
R1429	B	C	3C
R1430	B	C	3E
R1431	B	C	3D
R1432	B	C	3D
R1433	B	C	3D
R1434	B	C	3D
R1435	B	C	4D
R1436	B	C	5C
R1437	B	C	5D
R1438	B	C	5B
R1439	B	C	5D
R1440	B	C	5D
R1442	A	C	5D
R1443	A	C	5C
R1444	A	C	6B
R1445	A	C	5B
R1446	A	C	5B
R1447	A	C	5C
R1448	A	C	4C
R1449	A	C	5C
R1450	B	C	6C
R1451	B	C	6C
R1452	B	C	6C
R1454	B	C	5B
R1455	B	C	5B
R1456	B	C	5B
R1457	B	C	5B
R1458	B	C	4B
R1459	B	C	4B
R1460	A	C	5B
R1461	A	C	6D
R1462	B	C	4D
R1463	B	C	6B
R1465	A	C	6E
R1467	A	C	6E
R1468	B	C	4D
R1470	A	C	4E
R1471	A	C	4E
R1472	A	C	4E
RA1401	A	C	3C
RA1402	A	C	3C
RA1403	A	C	3D
RA1404	A	C	3D
RA1405	A	C	1E
RA1406	A	C	2E
RA1407	A	C	2B
RA1408	A	C	1B
OTHER			
LC1401	A	D	6B
LC1402	A	D	6C
TP1001	A	D	7E
VR1002	A	D	8E
VR1401	A	D	5C

— COMPONENT SIDE (A) —


P.BURST LEVEL ADJ.
VR1002
DA Y LEVEL ADJ.
VR1401
CN1005
CN1006
CN1001
CN1002
IC1010
IC1002
IC1007
IC1008
IC1006
IC1001
IC1401
IC1402
IC1403
RA1405
RA1406
RA1407
RA1408
Q1401
LC1401
TP1001
C3
A
B
C
D
E
1
2
3
4
5
6
7
8
9
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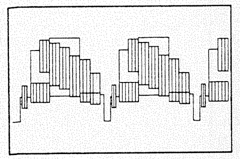
11
12
13

WAVEFORMS

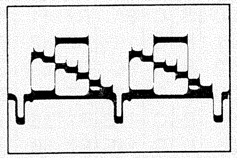
— 3D SVHS(VIDEO) —

WF1 CN1002-7



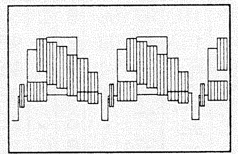
REC 0.8 Vp-p
20 mV/20 µsec/DIV

WF2 IC1001-46



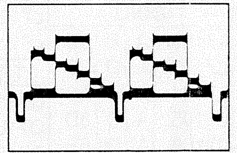
REC 1.0 Vp-p
20 mV/20 µsec/DIV

WF3-1 IC1001-43



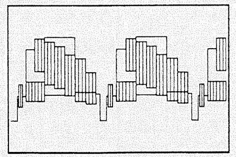
REC 0.56 Vp-p
20 mV/20 µsec/DIV

WF3-2 IC1001-43



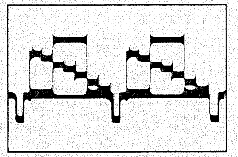
REC/PB 0.57 Vp-p
20 mV/20 µsec/DIV

WF4-1 IC1001-39



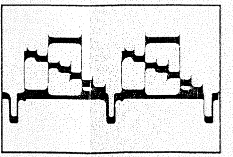
REC 1.8 Vp-p
50 mV/20 µsec/DIV

WF4-2 IC1001-39



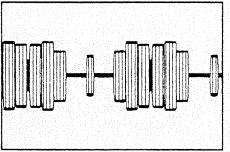
REC/PB 1.7 Vp-p
50 mV/20 µsec/DIV

WF5 IC1001-37



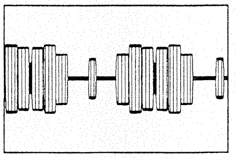
REC/PB 0.82 Vp-p
20 mV/20 µsec/DIV

WF6 IC1001-35



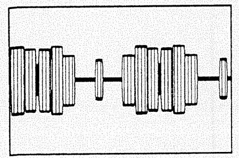
REC/PB 0.68 Vp-p
20 mV/20 µsec/DIV

WF7-1 IC1001-33



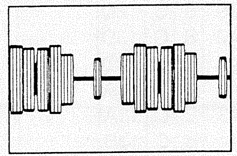
REC 0.36 Vp-p
10 mV/20 µsec/DIV

WF7-2 IC1001-33



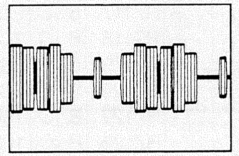
PB 0.46 Vp-p
10 mV/20 µsec/DIV

WF8 IC1001-28



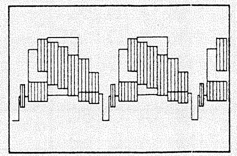
REC 0.7 Vp-p
20 mV/20 µsec/DIV

WF9 IC1001-26



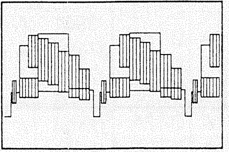
REC/PB 1.5 Vp-p
50 mV/20 µsec/DIV

WF10 IC1001-25



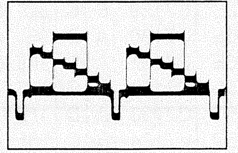
REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF11 IC1001-23



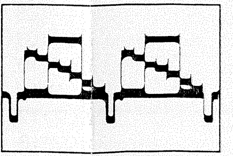
REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF12 IC1001-21



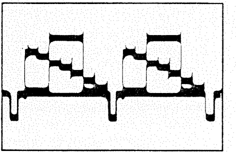
REC/PB 2.2 Vp-p
50 mV/20 µsec/DIV

WF13 IC1001-15



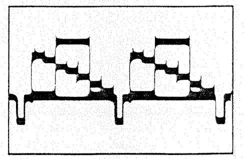
REC 2.2 Vp-p
20 mV/20 µsec/DIV

WF14 IC1001-5



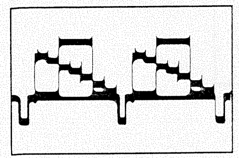
PB 0.6 Vp-p
20 mV/20 µsec/DIV

WF15-1 IC1001-56



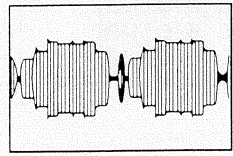
REC 0.42 Vp-p
10 mV/20 µsec/DIV

WF15-2 IC1001-56



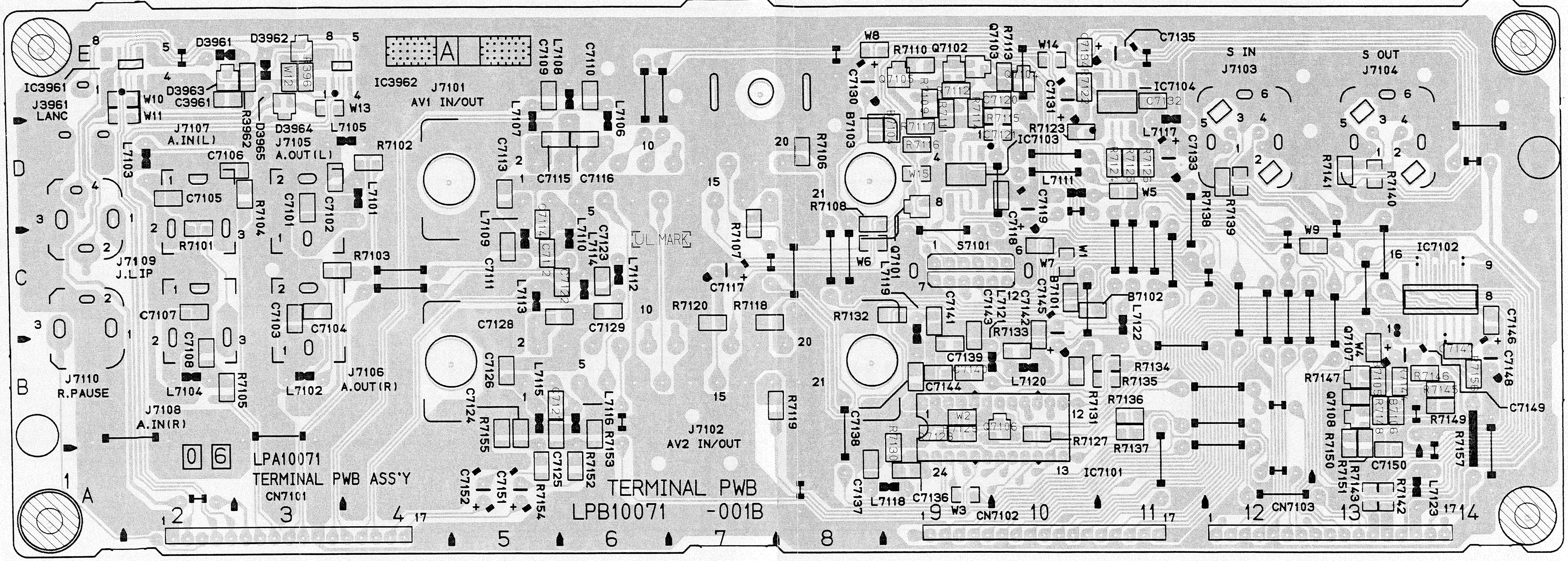
PB 0.52 Vp-p
20 mV/20 µsec/DIV

WF16 CN1001-22



PB 0.62 Vp-p
20 mV/20 µsec/DIV

4.29 TERMINAL CIRCUIT BOARD


J3961 LANC
IC3961
D3961
D3962
D3963
D3964
D3965
C3961
J7107 A.IN(L)
J7105 A.OUT(L)
J7109 J.LIP
J7110 R.PAUSE
J7108 A.IN(R)
J7106 A.OUT(R)
IC3962
J7101 AV1 IN/OUT
J7102 AV2 IN/OUT
UL MARK
S IN J7103
S OUT J7104
IC7101
IC7102
IC7103
IC7104
S7101
CN7101
CN7102
CN7103
LPA10071
TERMINAL PWB ASS'Y
TERMINAL PWB
LPB10071 -001B
06
A
B
C
D
E
1
2
3
4
5
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7
8
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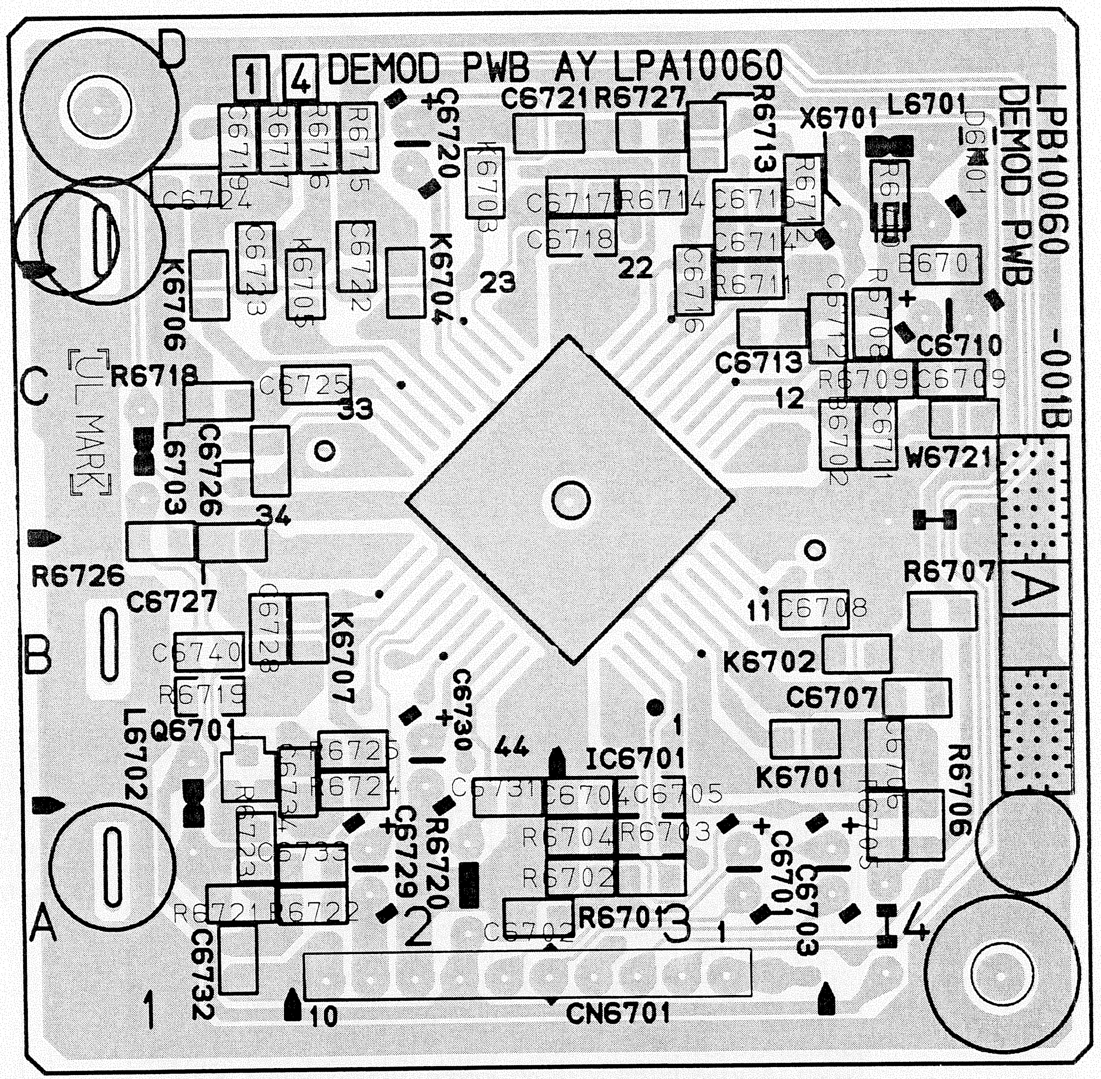
12
13
14

COMPONENT PARTS LOCATION GUIDE <TERMINAL>

REF.NO.	LOCATION		
CAPACITOR			
C3961	B	C	2E
C7101	B	C	3D
C7102	B	C	3D
C7103	B	C	3C
C7104	B	C	3C
C7105	B	C	2D
C7106	B	C	3D
C7107	B	C	2C
C7108	B	C	2B
C7109	B	C	5E
C7110	B	C	6E
C7111	B	C	5C
C7112	B	C	5C
C7113	B	C	5D
C7114	B	C	5D
C7115	B	C	6D
C7116	B	C	6D
C7117	A	D	7C
C7118	B	C	10D
C7119	A	D	10D
C7120	B	C	10E
C7121	B	C	10D
C7122	B	C	6C
C7123	B	C	6C
C7124	B	C	5B
C7125	B	C	5B
C7126	B	C	5B
C7127	B	C	5B
C7128	B	C	6C
C7129	B	C	6C
C7130	A	D	8E
C7131	A	D	10E
C7132	B	C	11E
C7133	A	D	11D
C7134	B	C	10E
C7135	A	D	11E
C7136	B	C	9A
C7137	B	C	8A
C7138	B	C	9B
C7139	B	C	9B
C7140	B	C	9B
C7141	B	C	9C
C7142	B	C	10B
C7143	B	C	9B
C7144	B	C	9B
C7145	A	D	10B
C7146	B	C	14C
C7147	B	C	14B
C7148	A	D	14B
C7149	A	D	13B
C7150	B	C	13A
C7151	A	D	5A
C7152	A	D	5A
CONNECTOR			
CN7101	A	D	2A
CN7102	A	D	9A
CN7103	A	D	12A
DIODE			
D3961	A	D	3E
D3962	B	C	3E
D3963	B	C	2E
D3964	B	C	3E
D3965	A	D	3E
IC			
IC3961	B	C	2E
IC7101	A	D	9B
IC7102	B	C	14C
IC7103	B	C	9D
IC7104	B	C	11E
JACK			
J3961	A	D	1E
J7101	A	D	6D
J7102	A	D	6B
J7103	A	D	12D
J7104	A	D	13D
J7105	A	D	3D
J7106	A	D	3C
J7107	A	D	2D
J7108	A	D	2C
J7109	A	D	1D
J7110	A	D	1C
COIL			
L7102	A	D	3B
L7103	A	D	2D
L7104	A	D	2B
L7105	A	D	3D
L7106	A	D	6E
L7107	A	D	5E
L7108	A	D	6E
L7109	A	D	5C
L7110	A	D	6C
L7111	A	D	10D
L7112	A	D	6C
L7113	A	D	5C
L7114	A	D	6C
L7115	A	D	5B
L7116	A	D	6B
L7117	A	D	11D
L7118	A	D	9A
L7119	A	D	9B
L7120	A	D	10B
L7121	A	D	10B
L7122	A	D	11C
L7123	A	D	13A
TRANSISTOR			
Q7101	B	C	9D
Q7102	B	C	9E
Q7103	B	C	9E
Q7104	B	C	10E
Q7105	B	C	9E
Q7106	B	C	10B
Q7107	B	C	13B
Q7108	B	C	13B
RESISTOR			
R3961	B	C	3E
R3962	B	C	3E
R7101	B	C	2C
R7103	B	C	3C
R7104	B	C	3D
R7105	B	C	2B
R7106	B	C	8D
R7107	B	C	7D
R7108	B	C	8D
R7109	B	C	9E
R7110	B	C	9E
R7111	B	C	9E
R7112	B	C	9E
R7113	B	C	10E
R7114	B	C	9E
R7115	B	C	10D
R7116	B	C	9D
R7117	B	C	9D
R7118	B	C	7C
R7119	B	C	8B
R7120	B	C	7C
R7122	B	C	10E
R7123	B	C	10D
R7124	B	C	11D
R7125	B	C	11D
R7126	B	C	11D
R7127	B	C	10B
R7128	B	C	9B
R7129	B	C	9B
R7130	B	C	9A
R7131	B	C	10B
R7132	B	C	9C
R7133	B	C	10B
R7134	B	C	11B
R7135	B	C	11B
R7136	B	C	11B
R7137	B	C	11B
R7138	B	C	12D
R7139	B	C	12D
R7140	B	C	13D
R7141	B	C	13D
R7142	B	C	13A
R7143	B	C	13A
R7144	B	C	13B
R7145	B	C	14B
R7146	B	C	14B
R7147	B	C	13B
R7148	B	C	13B
R7149	B	C	14B
R7150	B	C	13B
R7151	B	C	13B
R7152	B	C	6A
R7153	B	C	6B
R7154	B	C	5A
R7155	B	C	5B
R7156	B	C	14B
R7157	A	D	14A
OTHER			
S7101	A	D	9C

4.30 DEMODULATOR CIRCUIT BOARD

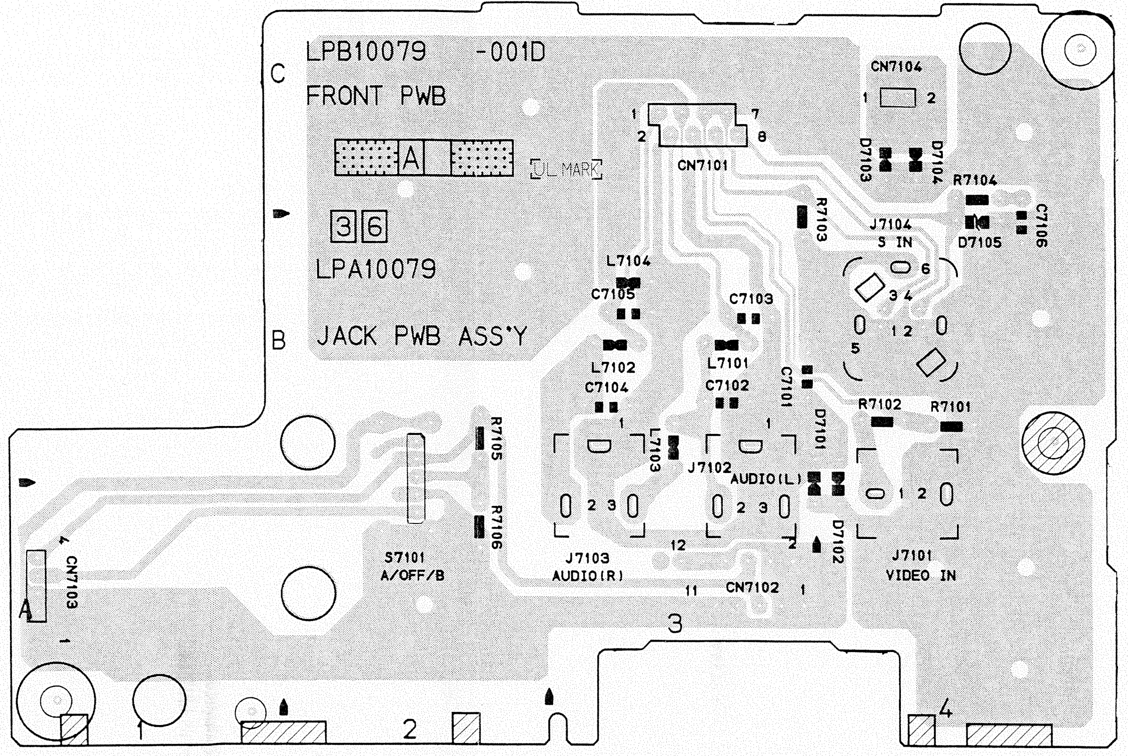

DEMOD PWB AY LPA10060
LPB10060 -001B
DEMOD PWB
D
C
B
A
1
2
3
4
UL MARK
C6701
C6702
C6703
C6704
C6705
C6706
C6707
C6708
C6709
C6710
C6711
C6712
C6713
C6714
C6715
C6716
C6717
C6718
C6719
C6720
C6721
C6722
C6723
C6724
C6725
C6726
C6727
C6728
C6729
C6730
C6731
C6732
C6733
C6734
C6740
R6701
R6702
R6703
R6704
R6705
R6706
R6707
R6708
R6709
R6710
R6711
R6712
R6713
R6714
R6715
R6716
R6717
R6718
R6719
R6720
R6721
R6722
R6723
R6724
R6725
R6726
R6727
K6701
K6702
K6703
K6704
K6705
K6706
K6707
L6701
L6702
L6703
X6701
D6701
Q6701
IC6701
W6721
CN6701
1
10
11
12
22
23
33
34
44

COMPONENT PARTS LOCATION GUIDE <DEMODULATOR>

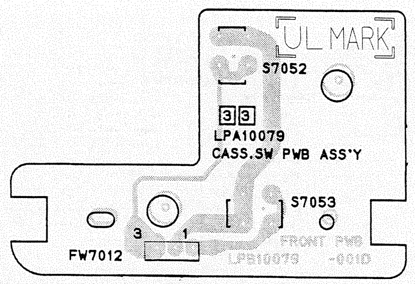
REF.NO.	LOCATION		
CAPACITOR			
C6701	A	D	3A
C6702	B	C	2A
C6703	A	D	4A
C6704	B	C	3B
C6705	B	C	3B
C6706	B	C	4B
C6707	B	C	4B
C6708	B	C	3B
C6709	B	C	4C
C6710	A	D	4C
C6711	B	C	4C
C6712	B	C	4C
C6713	B	C	3C
C6714	B	C	3D
C6715	B	C	3D
C6716	B	C	3C
C6717	B	C	3D
C6718	B	C	3D
C6719	B	C	1D
C6720	A	D	2D
C6721	B	C	3D
C6722	B	C	2D
C6723	B	C	1D
C6724	B	C	1D
C6725	B	C	2C
C6726	B	C	1C
C6727	B	C	1B
C6728	B	C	1B
C6729	A	D	2A
C6730	A	D	2B
C6731	B	C	2B
C6732	B	C	1A
C6733	B	C	2A
C6734	B	C	2B
CONNECTOR			
CN6701	A	D	3A
DIODE			
D6701	B	C	4D
IC			
IC6701	B	C	3C
COIL			
L6701	A	D	4D
L6702	A	D	1A
L6703	A	D	1C
TRANSISTOR			
Q6701	B	C	1B
RESISTOR			
R6701	B	C	3A
R6702	B	C	3A
R6703	B	C	3A
R6704	B	C	3A
R6705	B	C	4A
R6706	B	C	4A
R6707	B	C	4B
R6708	B	C	4C
R6709	B	C	4C
R6710	B	C	4D
R6711	B	C	3C
R6712	B	C	3D
R6713	B	C	3D
R6714	B	C	3D
R6715	B	C	2D
R6716	B	C	2D
R6717	B	C	2D
R6718	B	C	1C
R6719	B	C	1B
R6720	A	D	2A
R6721	B	C	1A
R6722	B	C	2A
R6723	B	C	1A
R6724	B	C	2B
R6725	B	C	2B
R6726	B	C	1B
R6727	B	C	3D
OTHER			
K6701	B	C	3B
K6702	B	C	4B
K6703	B	C	2D
K6704	B	C	2C
K6705	B	C	2C
K6706	B	C	1C
K6707	B	C	2B
X6701	A	D	4D

4.31 DISPLAY, REC SAFETY, CASS. SW AND JACK CIRCUIT BOARDS

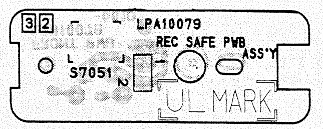
— JACK —


LPB10079 -001D
FRONT PWB
LPA10079
JACK PWB ASS'Y
CN7104
CN7101
D7103
D7104
R7104
R7103
J7104
S IN
D7105
C7106
L7104
C7105
C7103
L7102
C7104
L7101
C7102
C7101
D7101
R7102
R7101
R7105
R7106
L7103
J7102
AUDIO(L)
D7102
S7101
A/OFF/B
J7103
AUDIO(R)
CN7102
J7101
VIDEO IN
CN7103
UL MARK
A
B
C
1
2
3
4

— CASS. SW —


UL MARK
S7052
LPA10079
CASS.SW PWB ASS'Y
S7053
FW7012
FRONT PWB
LPB10079 -001D

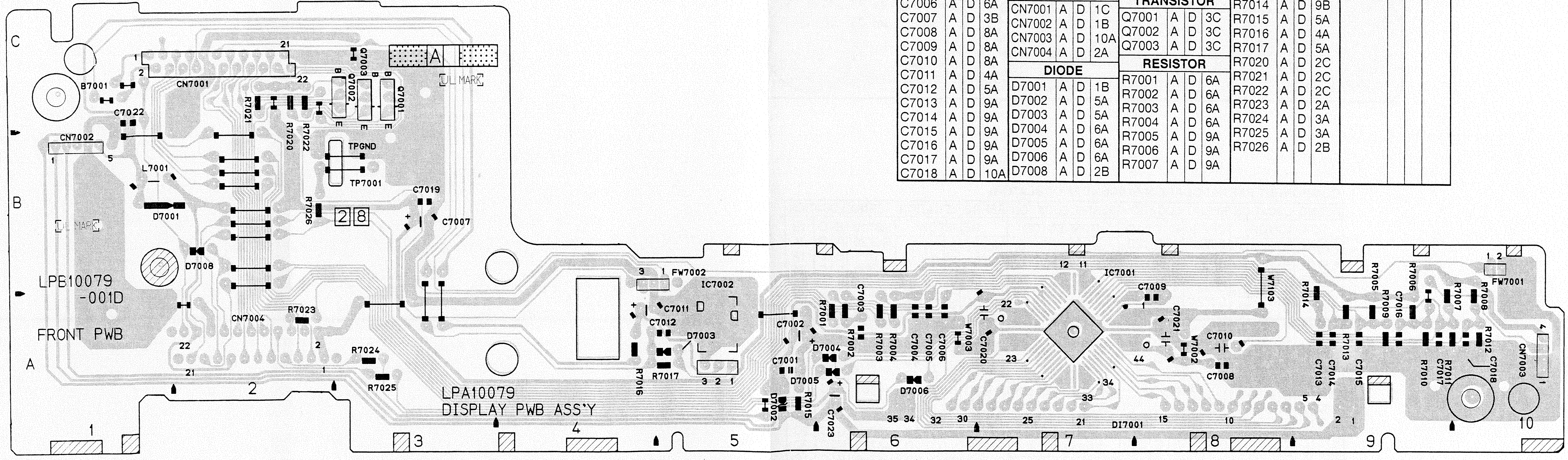
— REC SAFETY —


LPA10079
REC SAFE PWB
ASS'Y
S7051
UL MARK

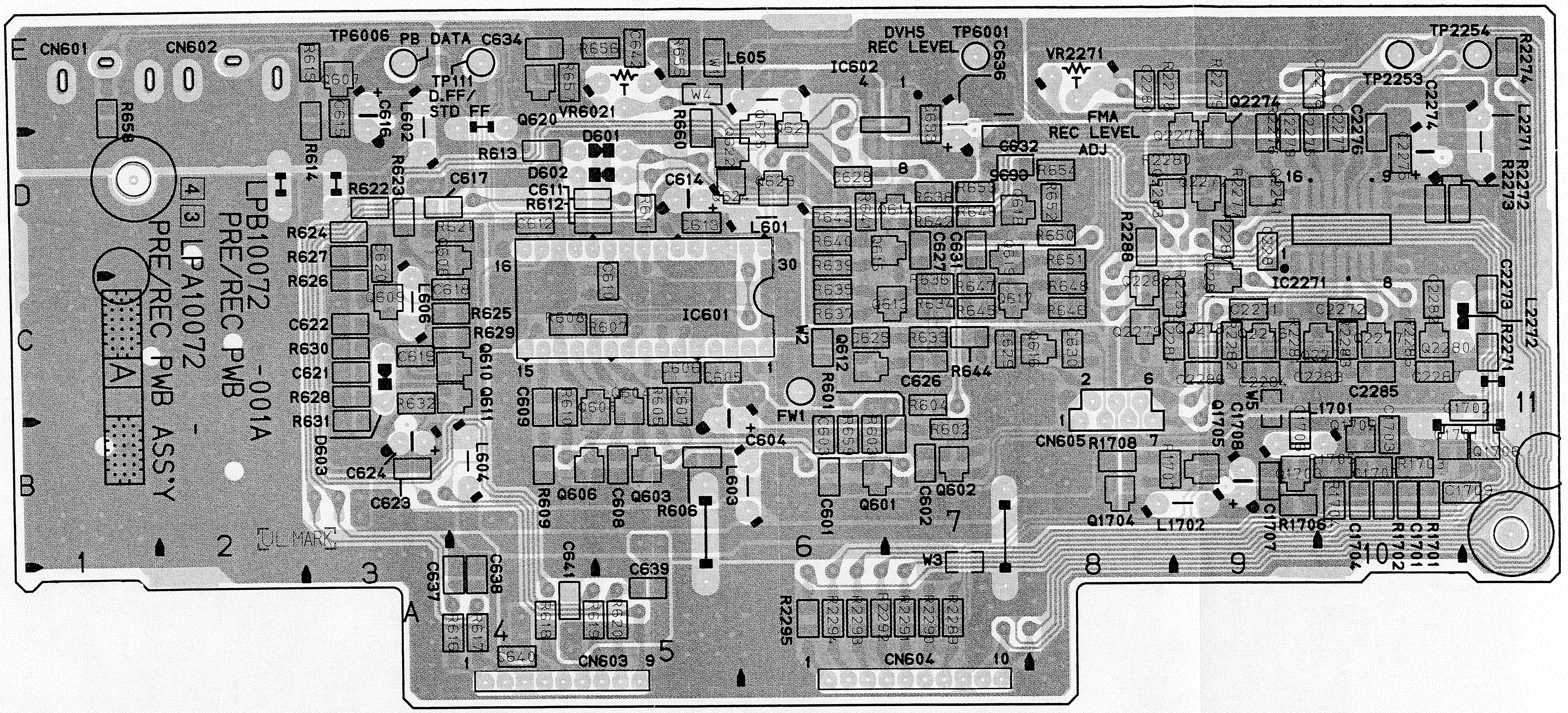
COMPONENT PARTS LOCATION GUIDE <DISPLAY>

REF.NO.	LOCATION		
CAPACITOR			
C7001	A	D	5A
C7002	A	D	5A
C7003	A	D	6A
C7004	A	D	6A
C7005	A	D	6A
C7006	A	D	6A
C7007	A	D	3B
C7008	A	D	8A
C7009	A	D	8A
C7010	A	D	8A
C7011	A	D	4A
C7012	A	D	5A
C7013	A	D	9A
C7014	A	D	9A
C7015	A	D	9A
C7016	A	D	9A
C7017	A	D	9A
C7018	A	D	10A
C7019	A	D	3B
C7020	A	D	7A
C7021	A	D	8A
C7022	A	D	1C
C7023	A	D	6A
CONNECTOR			
CN7001	A	D	1C
CN7002	A	D	1B
CN7003	A	D	10A
CN7004	A	D	2A
DIODE			
D7001	A	D	1B
D7002	A	D	5A
D7003	A	D	5A
D7004	A	D	6A
D7005	A	D	6A
D7006	A	D	6A
D7008	A	D	2B
IC			
IC7001	B	C	7A
IC7002	A	D	5A
COIL			
L7001	A	D	1B
TRANSISTOR			
Q7001	A	D	3C
Q7002	A	D	3C
Q7003	A	D	3C
RESISTOR			
R7001	A	D	6A
R7002	A	D	6A
R7003	A	D	6A
R7004	A	D	6A
R7005	A	D	9A
R7006	A	D	9A
R7007	A	D	9A
R7008	A	D	10A
R7009	A	D	9A
R7010	A	D	9A
R7011	A	D	10A
R7012	A	D	10A
R7013	A	D	9A
R7014	A	D	9B
R7015	A	D	5A
R7016	A	D	4A
R7017	A	D	5A
R7020	A	D	2C
R7021	A	D	2C
R7022	A	D	2C
R7023	A	D	2A
R7024	A	D	3A
R7025	A	D	3A
R7026	A	D	2B
OTHER			
DI7001	A	D	7A
FW7001	A	D	10B
FW7002	A	D	5B
TP7001	A	D	3B
TPGND	A	D	2B

— DISPLAY —


LPB10079
-001D
FRONT PWB
LPA10079
DISPLAY PWB ASS'Y
UL MARK
CN7001
CN7002
B7001
C7022
L7001
D7001
D7008
CN7004
R7021
R7020
R7022
Q7003
Q7002
Q7001
TPGND
TP7001
R7026
C7019
C7007
R7023
R7024
R7025
FW7002
IC7002
C7011
C7012
D7003
R7016
R7017
R7001
C7002
C7001
D7004
D7005
D7002
R7015
C7023
R7002
R7003
R7004
C7003
C7004
C7005
C7006
W7003
C7020
D7006
IC7001
C7009
C7021
W7002
C7010
C7008
DI7001
W7103
R7014
R7013
C7013
C7014
C7015
R7005
R7009
R7006
C7016
R7007
R7008
R7012
R7010
C7017
R7011
C7018
FW7001
CN7003
A
B
C
1
2
3
4
5
6
7
8
9
10

4.32 PRE/REC CIRCUIT BOARD

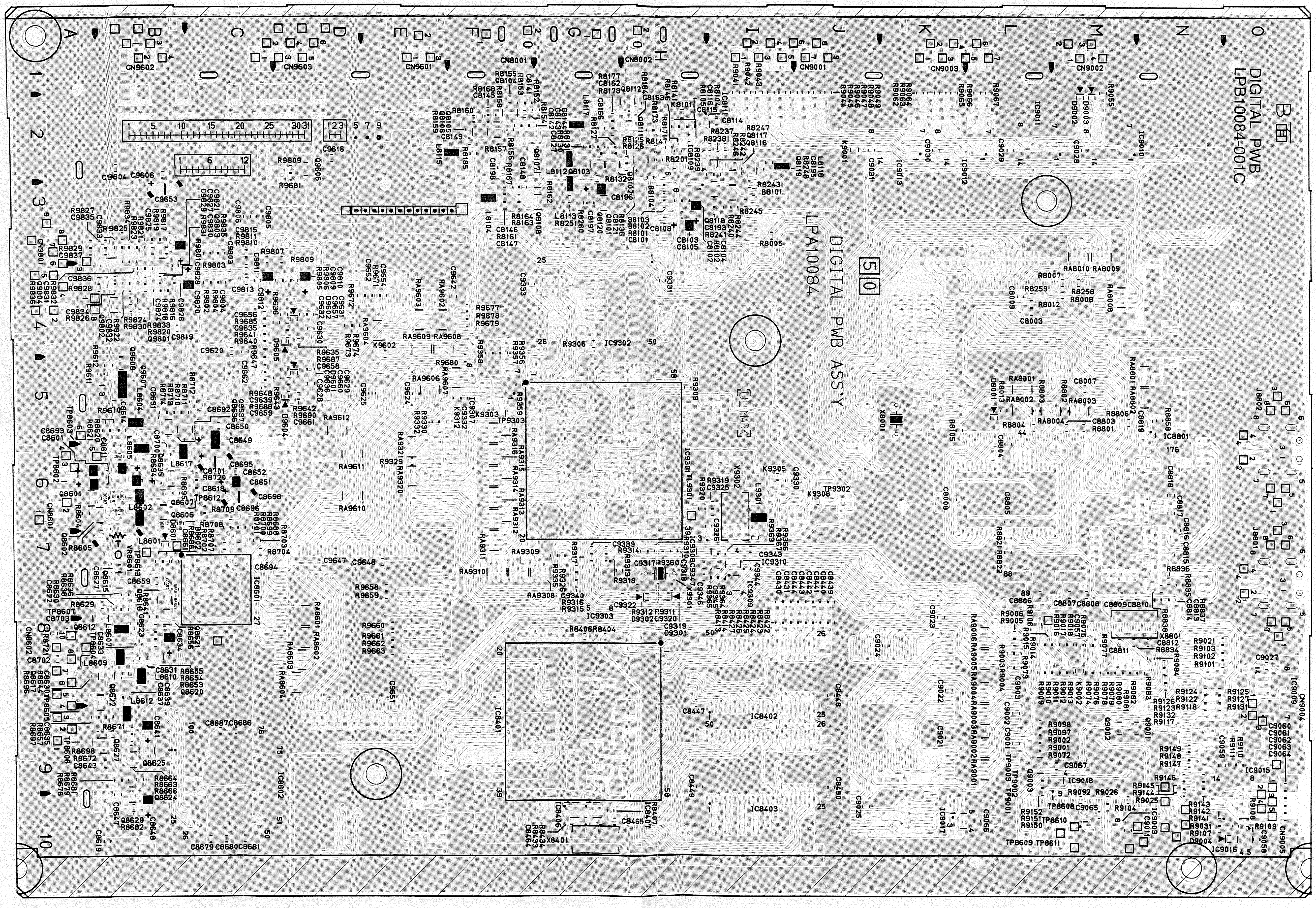

CN601
CN602
TP6006
PB DATA
C634
TP111
D.FF/
STD FF
Q620
VR6021
D601
D602
L605
IC602
DVHS
REC LEVEL
TP6001
C636
VR2271
FMA
REC LEVEL
ADJ
TP2254
TP2253
Q2274
IC2271
IC601
LPB10072 -001A
PRE/REC PWB
LPA10072 -
PRE/REC PWB ASS'Y
CN605
FW1
W2
W3
W4
W5
CN603
CN604
Q601
Q602
Q603
Q606
Q610
Q611
Q612
Q1704
Q1705
Q1706
L601
L602
L603
L604
L606
L1701
L1702
L2271
L2272
UL MARK
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10
11

COMPONENT PARTS LOCATION GUIDE <PRE/REC>

REF.NO.	LOCATION		
CAPACITOR			
C601	B	C	6B
C602	B	C	7B
C603	B	C	6B
C604	A	D	6B
C605	B	C	5C
C606	B	C	5C
C607	B	C	5C
C608	B	C	5B
C609	B	C	4C
C610	B	C	5C
C611	B	C	5D
C612	B	C	4D
C613	B	C	5D
C614	A	D	5D
C615	B	C	3E
C616	A	D	3E
C617	B	C	3D
C618	B	C	4C
C619	B	C	3C
C620	B	C	3D
C621	B	C	3C
C622	B	C	3C
C623	B	C	3B
C624	A	D	3B
C625	B	C	6C
C626	B	C	7C
C627	B	C	7D
C628	B	C	6D
C629	B	C	7C
C630	B	C	8C
C631	B	C	7D
C632	B	C	7D
C633	B	C	7E
C634	B	C	4E
C635	B	C	7D
C636	A	D	7D
C637	B	C	4A
C638	B	C	4A
C639	B	C	5A
C640	B	C	4A
C641	B	C	4A
C642	B	C	5E
C1701	B	C	10B
C1702	B	C	11C
C1703	B	C	10B
C1704	B	C	10B
C1705	B	C	10B
C1706	B	C	9B
C1707	B	C	9B
C1708	A	D	9B
C1709	B	C	11B
C2271	B	C	9C
C2272	B	C	10C
C2273	B	C	11C
C2274	A	D	10D
C2275	B	C	10D
C2276	B	C	10D
C2277	B	C	10D
C2278	B	C	10E
C2279	B	C	9D
C2280	B	C	8E
C2281	B	C	9D
C2282	B	C	10C
C2283	B	C	10C
C2284	B	C	9C
C2285	B	C	10C
C2286	B	C	9C
C2287	B	C	10C
CONNECTOR			
CN601	A	D	1E
CN602	A	D	2E
CN603	A	D	4A
CN604	A	D	6A
CN605	A	D	8B
DIODE			
D601	A	D	4D
D602	A	D	5D
D603	A	D	3C
IC			
IC601	A	D	6C
IC602	B	C	7E
IC2271	B	C	10D
COIL			
L601	A	D	6D
L602	A	D	3E
L603	A	D	6B
L604	A	D	4B
L605	A	D	6E
L606	A	D	3C
L1701	A	D	9B
L1702	A	D	8B
L2271	A	D	11D
L2272	A	D	11C
TRANSISTOR			
Q601	B	C	6B
Q602	B	C	7B
Q603	B	C	5B
Q604	B	C	5C
Q605	B	C	5C
Q606	B	C	4B
Q607	B	C	3E
Q608	B	C	4D
Q609	B	C	3C
Q610	B	C	4C
Q611	B	C	4C
Q612	B	C	6C
Q613	B	C	7C
Q614	B	C	7D
Q615	B	C	7D
Q616	B	C	8C
Q617	B	C	7C
Q618	B	C	7D
Q619	B	C	7D
Q620	B	C	4E
Q621	B	C	6D
Q622	B	C	5D
Q623	B	C	6D
Q624	B	C	5D
Q625	B	C	6D
Q1701	B	C	10B
Q1702	B	C	10B
Q1703	B	C	9B
Q1704	B	C	8B
Q1705	B	C	9B
Q1706	B	C	11B
Q2271	B	C	9D
Q2272	B	C	9D
Q2273	B	C	9D
Q2274	B	C	9D
Q2275	B	C	10C
Q2276	B	C	9C
Q2277	B	C	10C
Q2278	B	C	9C
Q2279	B	C	8C
Q2280	B	C	10C
Q2281	B	C	9C
Q2282	B	C	8C
Q2283	B	C	8D
RESISTOR			
R601	B	C	7B
R602	B	C	7B
R603	B	C	6B
R604	B	C	7C
R605	B	C	5C
R606	B	C	5B
R607	B	C	5C
R608	B	C	4C
R609	B	C	4B
R610	B	C	4C
R611	B	C	5D
R612	B	C	5D
R613	B	C	4D
R614	B	C	3E
R615	B	C	3E
R616	B	C	4A
R617	B	C	4A
R618	B	C	4A
R619	B	C	4A
R620	B	C	5A
R621	B	C	4D
R622	B	C	3D
R623	B	C	3D
R624	B	C	3D
R625	B	C	4C
R626	B	C	3C
R627	B	C	3D
R628	B	C	3C
R629	B	C	4C
R630	B	C	3C
R631	B	C	3B
R632	B	C	3C
R633	B	C	7C
R634	B	C	7C
R635	B	C	6C
R636	B	C	7C
R637	B	C	6C
R638	B	C	7D
R639	B	C	6D
R640	B	C	6D
R641	B	C	6D
R642	B	C	7D
R643	B	C	6D
R644	B	C	7C
R645	B	C	7C
R646	B	C	8C
R647	B	C	7C
R648	B	C	8C
R649	B	C	7D
R650	B	C	8D
R651	B	C	8D
R652	B	C	8D
R653	B	C	7D
R654	B	C	8D
R655	B	C	5E
R656	B	C	5E
R657	B	C	4E
R658	B	C	1E
R659	B	C	6B
R660	B	C	5D
R1701	B	C	10B
R1702	B	C	10B
R1703	B	C	10B
R1704	B	C	10B
R1705	B	C	10B
R1706	B	C	9B
R1707	B	C	8B
R1708	B	C	8B
R2271	B	C	11C
R2272	B	C	11D
R2273	B	C	10D
R2274	B	C	11E
R2275	B	C	10D
R2276	B	C	9D
R2277	B	C	9D
R2278	B	C	9E
R2279	B	C	9E
R2280	B	C	8D
R2281	B	C	9C
R2282	B	C	9C
R2283	B	C	10C
R2284	B	C	9C
R2285	B	C	9C
R2286	B	C	10C
R2287	B	C	9D
R2288	B	C	8D
R2289	B	C	7A
R2290	B	C	7A
R2291	B	C	7A
R2292	B	C	6A
R2293	B	C	6A
R2294	B	C	6A
R2295	B	C	6A
VR2271	A	D	8E
VR6021	A	D	5E
TEST POINT			
TP111	A	D	4E
TP2253	A	D	10E
TP2254	A	D	11E
TP6001	A	D	7E
TP6006	A	D	3E
OTHER			
FW1	A	D	6C

4.33 DIGITAL CIRCUIT BOARD

— FOIL SIDE (B) —


B 面
DIGITAL PWB
LPB10084-001C
DIGITAL PWB ASS'Y
LPA10084
50
UL MARK
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
CN9602
CN9603
CN9601
CN8001
CN8002
CN9001
CN9003
CN9002
CN9601
CN8601
CN8602
CN9004
CN9005
IC9302
IC9301
IC9303
IC9310
IC8401
IC8402
IC8403
IC8601
IC8602
IC8801
IC9011
IC9012
IC9013
IC9010
IC9009
IC9015
IC9016
IC9017
IC9018
X8001
X9301
X8801
X8401
J8602
J8601

COMPONENT PARTS LOCATION GUIDE <DIGITAL>

REF.NO.	LOCATION		
CAPACITOR			
C8001	A	C	5K
C8002	A	C	5K
C8003	B	C	4L
C8004	A	C	6M
C8005	A	C	5K
C8006	A	C	4M
C8007	B	C	5M
C8008	B	C	6K
C8009	B	C	4L
C8010	A	C	4M
C8101	B	C	3H
C8102	B	C	3H
C8103	B	C	3H
C8104	B	C	3H
C8105	B	C	3H
C8106	A	C	2I
C8107	A	C	3I
C8108	B	C	3H
C8109	A	C	2H
C8110	A	C	2I
C8111	A	C	3H
C8112	A	C	3H
C8113	A	C	3H
C8114	B	C	2I
C8115	B	C	2H
C8116	B	C	2H
C8121	B	C	2H
C8123	A	C	3G
C8124	A	C	3G
C8127	B	C	2G
C8129	A	C	2G
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C8141	B	C	2F
C8142	B	C	2F
C8143	B	C	2F
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C8145	B	C	2F
C8146	B	C	3F
C8147	B	C	3F
C8148	B	C	3F
C8149	B	C	2F
C8150	A	C	2F
C8151	A	C	2F
C8152	A	C	2F
C8162	B	C	2G
C8163	B	C	2H
C8164	A	C	2G
C8166	B	C	2G
C8167	A	C	2G
C8191	A	C	2F
C8192	A	C	2H
C8193	B	C	3I
C8194	A	C	2I
C8195	B	C	2I
C8196	B	C	3G
C8197	B	C	3G
C8198	B	C	2F
C8199	A	C	3F
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C8402	A	C	9G
C8403	A	C	10G
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C8406	A	C	8G
C8407	A	C	8G
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C8423	A	C	8G
C8424	A	C	9G
C8425	A	C	9G
C8426	A	C	8G
C8427	A	C	8F
C8428	A	C	9F
C8429	A	C	10I
C8430	B	C	7I
C8431	B	C	7I
C8432	A	C	7I
C8433	A	C	7I
C8434	A	C	7I
C8435	A	C	7J
C8436	A	C	7J
C8437	A	C	7J
C8438	A	C	7J
C8439	B	C	7J
C8440	B	C	7J
C8441	B	C	7J
C8442	B	C	7J
C8443	B	C	7J
C8444	B	C	7I
C8445	A	C	7J
C8446	A	C	7I
C8447	B	C	8H
C8448	B	C	8J
C8449	B	C	9H
C8450	B	C	9J
C8451	A	C	8H
C8452	A	C	8J
C8453	A	C	9H
C8454	A	C	9J
C8455	A	C	10G
C8456	A	C	10G
C8457	A	C	10J
C8458	A	C	10J
C8459	A	C	10F
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C8608	B	C	6B
C8609	A	C	5B
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C8692	B	C	5C
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C8699	A	C	6C
C8700	B	C	6B
C8701	B	C	6C
C8702	B	C	8A
C8703	B	C	8A
C8801	A	C	5N
C8802	A	C	6N
C8803	B	C	5M
C8804	B	C	6L
C8805	B	C	6L
C8806	B	C	7L
C8807	B	C	7M
C8808	B	C	7M
C8809	B	C	7M
C8810	B	C	7M
C8811	B	C	8M
C8812	B	C	8N
C8813	B	C	7N
C8814	B	C	7N
C8815	B	C	7N
C8816	B	C	7N
C8817	B	C	6N
C8818	B	C	6N
C8819	B	C	5N
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C8822	A	C	7N
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C8824	A	C	6M
C8825	A	C	6M
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C9016	A	C	9N
C9017	A	C	10N
C9018	A	C	10M
C9019	A	C	10M
C9020	A	C	10L
C9021	B	C	9K
C9022	B	C	8K
C9023	B	C	8K
C9024	B	C	8K
C9025	B	C	10J
C9026	A	C	10K
C9027	B	C	8O
C9028	B	C	2M
C9029	B	C	2L
C9030	B	C	2K
C9031	B	C	2J
C9032	A	C	2I
C9033	A	C	2I
C9034	A	C	2I
C9035	A	C	2I
C9036	A	C	2I
C9037	A	C	2J
C9038	A	C	2J
C9039	A	C	2J
C9040	A	C	2J
C9041	A	C	2M
C9042	A	C	2M
C9043	A	C	2M
C9044	A	C	2K
C9045	A	C	2K
C9046	A	C	2K
C9047	A	C	2K
C9048	A	C	2L
C9049	A	C	2L
C9050	A	C	8O
C9051	A	C	8O
C9054	A	C	7L
C9055	A	C	10L
C9057	B	C	8M
C9058	B	C	10O
C9059	B	C	9N
C9060	B	C	9O
C9061	B	C	10O
C9062	B	C	10O
C9063	B	C	10O
C9064	B	C	10O
C9065	B	C	10M
C9066	B	C	10L
C9067	B	C	9M
C9301	A	C	5G
C9302	A	C	5G
C9303	A	C	5G
C9304	A	C	5G
C9305	A	C	5G
C9306	A	C	7G
C9307	A	C	6G
C9308	A	C	6G
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C9312	A	C	5H
C9313	A	C	5H
C9314	A	C	5G
C9316	A	C	7G
C9317	B	C	7H
C9318	B	C	7H
C9319	B	C	7H
C9320	B	C	7H
C9322	B	C	7G
C9324	A	C	6H
C9325	B	C	6I
C9326	B	C	6H
C9327	A	C	6I
C9328	A	C	4G
C9329	A	C	6H
C9330	B	C	6I
C9331	B	C	4H
C9332	B	C	5F
C9333	B	C	4F
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C9336	A	C	5F
C9337	A	C	5G
C9338	A	C	6H
C9339	B	C	7G
C9340	B	C	7G
C9341	A	C	6I
C9342	A	C	6I
C9343	B	C	7I
C9344	B	C	7I
C9345	B	C	7I
C9346	B	C	7H
C9347	B	C	7H
C9348	A	C	7I
C9601	A	C	2E
C9602	A	C	2E
C9603	A	C	2B
C9604	B	C	2B
C9605	A	C	2B
C9606	B	C	2B
C9607	A	C	2C
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C9609	A	C	2C
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C9612	A	C	2C
C9613	A	C	2D
C9614	A	C	2D
C9615	A	C	2D
C9616	B	C	2D
C9617	A	C	6D
C9618	A	C	6D
C9619	A	C	4C
C9620	B	C	4C
C9621	A	C	3D
C9623	A	C	5F
C9624	B	C	5E
C9625	B	C	5E
C9626	A	C	4D
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C9629	B	C	5D
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C9634	A	C	4C
C9635	B	C	4C
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C9637	A	C	5C
C9638	A	C	5C
C9639	B	C	5C
C9640	A	C	3D
C9641	A	C	4E
C9642	B	C	4F
C9643	A	C	4F
C9644	A	C	9D
C9645	A	C	8C
C9646	A	C	7C
C9647	B	C	7D
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C9652	B	C	4E
C9653	A	D	3B
C9654	B	C	4E
C9655	A	C	7F
C9656	B	C	4C
C9657	B	C	4D
C9658	B	C	4D
C9659	B	C	5C
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C9662	B	C	4C
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C9802	A	C	4C
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C9826	B	C	4B
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C9832	B	C	4B
C9833	B	C	3B
C9834	B	C	4B
C9835	B	C	3B
C9836	B	C	4B
C9837	B	C	3A
CONNECTOR			
CN8001	A	D	1F
CN8002	A	D	1H
CN8601	A	C	6A
CN8602	A	C	9A
CN9001	A	C	1I
CN9002	A	C	1M
CN9003	A	C	1K
CN9004	A	C	8O
CN9005	A	C	9O
CN9601	A	C	1E
CN9602	A	C	1B
CN9603	A	C	1C
CN9801	A	C	4A
DIODE			
D8001	B	C	5L
D8601	B	C	7B
D8602	A	C	6C
D9001	A	C	9O
D9002	B	C	1M
D9003	B	C	1M
D9004	B	C	10N
D9301	B	C	7H
D9302	B	C	7H
D9303	A	C	6I
D9601	B	C	5D
D9602	B	C	4D
D9603	A	C	10F
D9604	B	C	5D
D9605	B	C	4D
IC			
IC8001	A	C	5L
IC8002	A	C	6L
IC8101	A	C	3I
IC8102	A	C	3G
IC8109	B	C	2H
IC8110	A	C	2F
IC8111	B	C	2H
IC8401	B	C	9G
IC8402	B	C	8I
IC8403	B	C	9I
IC8404	A	C	8I
IC8405	A	C	9I
IC8406	B	C	10G
IC8407	B	C	10G
IC8601	B	C	7C
IC8602	B	C	9C
IC8801	B	C	6M
IC8802	A	C	6N
IC9001	A	C	9M
IC9002	A	C	9O
IC9003	B	C	10M
IC9004	A	C	9K
IC9005	A	C	8K
IC9006	A	C	8K
IC9007	A	C	8K
IC9008	A	C	10K
IC9009	B	C	8O
IC9010	B	C	2M
IC9011	B	C	2L
IC9012	B	C	2K
IC9013	B	C	2K
IC9014	A	C	10K
IC9015	B	C	10O
IC9016	B	C	10O
IC9017	B	C	10K
IC9018	B	C	9M
IC9301	B	C	6G
IC9302	B	C	4G
IC9303	B	C	7G
IC9304	A	C	6I
IC9305	A	C	6J
IC9307	B	C	5F
IC9308	B	C	7H
IC9309	B	C	7I
IC9310	B	C	7I
IC9601	A	C	4E
IC9602	A	C	4C
IC9603	A	C	8D
IC9801	A	C	3C
IC9802	A	C	3B
IC9803	A	C	3B
JACK			
J8801	A	D	7O
J8802	A	D	6O
COIL			
L8101	A	C	2F
L8102	A	C	2F
L8103	A	C	2G
L8104	B	C	3F
L8105	A	C	2G
L8106	A	C	2F
L8111	A	C	3H
L8112	B	C	2G
L8113	B	C	3G
L8115	B	C	2F
L8116	A	C	2F
L8117	B	C	2G
L8118	B	C	2I
L8401	A	C	10G
L8601	B	C	6B
L8602	B	C	6B
L8603	A	C	5B
L8604	B	C	5B
L8605	B	C	6B
L8606	A	C	10B
L8607	B	C	8B
L8608	A	C	8B
L8609	B	C	8B
L8610	B	C	8B
L8611	A	C	9B
L8612	B	C	9B
L8613	A	C	9B
L8614	A	C	9B
L8615	A	C	5C
L8616	A	C	6C
L8617	B	C	6B
L8802	A	C	5N
L8803	A	C	7O
L8804	A	C	6O
L9301	B	C	6I
L9302	A	C	5G
L9610	A	C	4C
L9801	A	C	3D
L9802	A	C	4B
TRANSISTOR			
Q8101	B	C	2H
Q8102	B	C	2G
Q8103	B	C	2G
Q8104	B	C	2F
Q8105	B	C	2F
Q8106	B	C	2F
Q8107	B	C	3G
Q8108	B	C	3G
Q8109	A	C	2H
Q8110	A	C	2H
Q8111	B	C	2H
Q8112	B	C	2H
Q8115	A	C	2H
Q8116	B	C	3I
Q8117	B	C	2I
Q8118	B	C	3I
Q8119	B	C	2I
Q8120	B	C	3G
Q8121	A	C	3F
Q8401	A	C	9G
Q8402	A	C	9G
Q8601	B	C	6A
Q8602	B	C	6A
Q8603	A	C	6B
Q8604	A	C	6B
Q8605	A	C	7B
Q8606	B	C	6B
Q8607	B	C	6B
Q8608	A	C	6B
Q8609	A	C	6B
Q8610	A	C	6B
Q8611	A	C	6B
Q8612	B	C	8A
Q8613	A	C	7B
Q8614	A	C	7B
Q8615	B	C	7B
Q8616	B	C	7B
Q8617	B	C	8B
Q8618	A	C	8B
Q8619	A	C	8B
Q8620	B	C	8B
Q8621	B	C	7B
Q8622	B	C	8A
Q8623	A	C	9B
Q8624	B	C	9B
Q8625	B	C	9B
Q8626	A	C	7B
Q8627	B	C	9A
Q8628	A	C	10B
Q8629	B	C	10B
Q8630	A	C	10B
Q8631	A	C	7B
Q8632	A	C	6C
Q8633	A	C	7C
Q8634	A	C	7B
Q8635	B	C	6B
Q8636	B	C	5B
Q8637	B	C	5B
Q9001	B	C	9M
Q9002	B	C	9M
Q9003	B	C	9L
Q9601	A	C	10F
Q9602	A	C	10E
Q9603	A	C	10F
Q9604	A	C	10E
Q9605	A	C	3D
Q9606	B	C	2D
Q9607	B	C	5B
Q9608	B	C	5B
Q9609	A	C	4N
Q9610	A	C	3N
Q9611	A	C	2H
Q9612	A	C	2H
Q9613	A	C	5I
Q9614	A	C	5H
Q9615	A	C	5N
Q9616	A	C	5N
Q9617	A	C	6D
Q9618	A	C	5D
Q9619	A	C	5C
Q9620	A	C	5C
Q9801	B	C	4B
Q9802	B	C	4B
Q9803	B	C	3B
Q9804	B	C	3B
RESISTOR			
R8001	A	C	5K
R8002	A	C	5K
R8003	A	C	3L
R8004	A	C	3M
R8005	B	C	3I
R8006	A	C	3M
R8007	B	C	4M
R8008	B	C	4M
R8012	B	C	4L
R8013	B	C	5L
R8101	B	C	3H
R8102	B	C	3H
R8103	A	C	3H
R8104	B	C	2H
R8105	B	C	2H
R8112	A	C	4H
R8113	A	C	4H
R8122	A	C	2H
R8123	A	C	2H
R8125	B	C	2H
R8126	B	C	2H
R8127	B	C	2G
R8128	A	C	2G
R8129	A	C	2G
R8130	B	C	2G
R8131	B	C	2G
R8132	B	C	2G
R8134	A	C	3G
R8135	A	C	3G
R8136	B	C	2H
R8137	A	C	3G
R8141	B	C	2H
R8146	B	C	2H
R8147	B	C	2H
R8148	A	C	3G
R8151	A	C	2F
R8152	B	C	2G
R8153	B	C	2F
R8154	B	C	2F
R8155	B	C	2F
R8156	B	C	2F
R8157	B	C	2F
R8158	B	C	2F
R8159	B	C	2F
R8160	B	C	2F
R8161	B	C	3F
R8162	B	C	3G
R8163	B	C	3F
R8164	B	C	3F
R8165	A	C	3F
R8166	A	C	3F
R8167	B	C	3F
R8168	B	C	2F
R8171	B	C	2H
R8172	A	C	2H
R8173	B	C	2H
R8174	A	C	2H
R8175	A	C	2H

REF.NO.	LOCATION		
R8176	A	C	2H
R8177	B	C	2G
R8178	B	C	2G
R8179	A	C	2H
R8180	A	C	2G
R8181	A	C	2G
R8183	A	C	2H
R8184	B	C	2H
R8185	B	C	2F
R8186	A	C	3G
R8201	B	C	2H
R8231	A	C	2I
R8232	A	C	2I
R8233	A	C	2I
R8234	A	C	2H
R8235	A	C	2H
R8236	A	C	2I
R8237	B	C	2I
R8238	B	C	2I
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R8240	B	C	3I
R8241	B	C	3I
R8242	B	C	2I
R8243	B	C	3I
R8244	B	C	3I
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R8247	B	C	2I
R8248	B	C	2I
R8249	A	C	2F
R8250	A	C	2F
R8251	B	C	3G
R8252	A	C	3K
R8253	A	C	3K
R8254	A	C	3K
R8255	A	C	3K
R8256	A	C	3K
R8257	A	C	3K
R8258	B	C	4M
R8259	B	C	4L
R8260	B	C	3G
R8261	A	C	3F
R8401	A	C	9G
R8402	A	C	9G
R8403	A	C	9G
R8404	B	C	8G
R8405	A	C	9G
R8406	B	C	8G
R8407	B	C	10G
R8408	A	C	9F
R8409	A	C	8G
R8410	A	C	9F
R8411	A	C	10G
R8412	A	C	10I
R8413	B	C	8I
R8414	B	C	8I
R8415	A	C	8I
R8416	A	C	8I
R8417	A	C	8I
R8418	A	C	8J
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R8423	B	C	8J
R8424	B	C	8J
R8425	B	C	8J
R8426	B	C	8J
R8427	B	C	8I
R8428	A	C	8J
R8429	A	C	8I
R8430	A	C	8G
R8431	A	C	8F
R8432	A	C	8G
R8433	B	C	10G
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R8435	A	C	10G
R8436	A	C	9H
R8437	A	C	9G
R8438	A	C	9G
R8601	A	C	6A
R8602	A	C	6A
R8603	A	C	6B
R8604	B	C	6A
R8605	B	C	6A
R8606	A	C	6A
R8607	B	C	6B
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R8669	A	C	8B
R8670	A	C	7B
R8671	B	C	9B
R8672	B	C	9B
R8673	A	C	9A
R8674	A	C	10A
R8675	A	C	10B
R8676	B	C	9B
R8677	A	C	10B
R8678	A	C	10B
R8679	B	C	9B
R8680	A	C	10B
R8681	B	C	9B
R8682	B	C	10B
R8683	A	C	8B
R8684	A	C	7B
R8685	A	C	7C
R8686	B	C	7B
R8687	A	C	7C
R8688	B	C	6C
R8689	B	C	6B
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R8693	A	C	6B
R8694	B	C	6B
R8695	B	C	6B
R8696	B	C	8A
R8697	B	C	9A
R8698	B	C	9A
R8699	B	C	6C
R8700	B	C	6C
R8701	B	C	6C
R8702	B	C	7C
R8703	B	C	7C
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R8720	B	C	6C
R8721	B	C	8A
R8801	B	C	5M
R8802	B	C	5M
R8803	B	C	5L
R8804	B	C	5L
R8806	B	C	5M
R8821	B	C	7L
R8822	B	C	7L
R8823	A	C	7L
R8824	A	C	6M
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R9007	A	C	9O
R9008	A	C	9O
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R9010	B	C	8L
R9011	B	C	8M
R9012	B	C	8M
R9013	B	C	8M
R9014	B	C	8L
R9015	B	C	8L
R9016	B	C	8M
R9017	B	C	8M
R9018	B	C	8M
R9019	A	C	7L
R9020	A	C	7L
R9021	B	C	8N
R9022	A	C	8N
R9023	A	C	9N
R9024	A	C	9O
R9025	B	C	10M
R9026	B	C	10M
R9027	A	C	8L
R9028	A	C	9K
R9029	A	C	9K
R9030	A	C	10K
R9031	B	C	10N
R9032	A	C	2I
R9033	A	C	2I
R9034	A	C	2I
R9035	A	C	2I
R9036	A	C	2I
R9037	A	C	2J
R9038	A	C	2J
R9039	A	C	2J
R9040	A	C	2J
R9041	B	C	2I
R9042	B	C	2I
R9043	B	C	2I
R9044	B	C	2I
R9045	B	C	2I
R9046	B	C	2J
R9047	B	C	2J
R9048	B	C	2J
R9049	B	C	2J
R9050	A	C	2M
R9051	A	C	2M
R9052	A	C	2M
R9055	B	C	2M
R9056	A	C	2K
R9057	A	C	2K
R9058	A	C	2K
R9059	A	C	2K
R9060	A	C	2L
R9061	A	C	2L
R9062	B	C	2K
R9063	B	C	2K
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R9066	B	C	2L
R9067	B	C	2L
R9068	A	C	8O
R9069	A	C	8O
R9072	B	C	9L
R9073	B	C	8L
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R9075	B	C	8M
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R9078	B	C	8M
R9079	B	C	8M
R9080	B	C	8M
R9081	B	C	8M
R9082	B	C	8M
R9083	B	C	8N
R9084	B	C	8N
R9085	A	C	8N
R9086	A	C	8N
R9087	A	C	8N
R9088	A	C	8N
R9089	A	C	9N
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R9098	B	C	9L
R9101	B	C	8N
R9102	B	C	8N
R9103	B	C	8N
R9104	B	C	10M
R9106	B	C	8L
R9107	B	C	10N
R9108	B	C	10O
R9109	B	C	10O
R9110	B	C	9O
R9111	B	C	9O
R9112	A	C	9O
R9113	A	C	10O
R9114	A	C	10O
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R9116	A	C	10O
R9117	B	C	8N
R9118	B	C	9N
R9119	A	C	10L
R9120	A	C	10L
R9121	A	C	10L
R9122	B	C	8N
R9123	B	C	8N
R9124	B	C	8N
R9125	B	C	8N
R9126	B	C	8N
R9127	B	C	8N
R9128	A	C	10L
R9129	A	C	10L
R9130	A	C	10L
R9131	B	C	9N
R9132	B	C	8N
R9141	B	C	10N
R9142	B	C	9N
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R9149	B	C	9N
R9150	B	C	9L
R9151	B	C	9L
R9152	B	C	9L
R9301	A	C	5F
R9302	A	C	5F
R9303	A	C	5F
R9304	A	C	4F
R9305	A	C	4F
R9306	B	C	4G
R9307	A	C	5H
R9308	A	C	5H
R9309	B	C	5H
R9310	B	C	7H
R9311	B	C	7H
R9312	B	C	7H
R9313	B	C	7G
R9314	B	C	7G
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R9317	B	C	7G
R9318	B	C	7G
R9319	B	C	6I
R9320	B	C	6H
R9321	A	C	6I
R9322	A	C	6I
R9323	A	C	6G
R9324	A	C	6G
R9325	A	C	6G
R9326	B	C	7G
R9327	A	C	5F
R9328	A	C	6G
R9329	B	C	6E
R9330	B	C	5E
R9331	A	C	5F
R9332	B	C	5E
R9333	A	C	4G
R9334	A	C	6G
R9335	B	C	7G
R9336	A	C	6H
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R9343	A	C	6H
R9344	A	C	5H
R9345	A	C	5H
R9346	A	C	6H
R9347	A	C	6I
R9348	A	C	6H
R9349	A	C	6H
R9350	A	C	6G
R9351	A	C	5G
R9352	A	C	6G
R9353	A	C	5G
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R9357	B	C	4F
R9358	B	C	4F
R9359	B	C	5F
R9360	B	C	7H
R9361	A	C	7I
R9362	A	C	6I
R9363	B	C	7I
R9364	B	C	7I
R9365	B	C	7I
R9366	B	C	7I
R9367	B	C	7I
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R9608	A	C	2D
R9609	B	C	2D
R9610	B	C	5B
R9611	B	C	5B
R9612	B	C	5B
R9613	A	C	4N
R9614	A	C	4N
R9615	A	C	4N
R9616	A	C	2H
R9617	A	C	2H
R9618	A	C	2H
R9619	A	C	5I
R9620	A	C	5I
R9621	A	C	5H
R9622	A	C	5N
R9623	A	C	5N
R9624	A	C	5N
R9625	A	C	5D
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R9671	B	C	4E
R9672	B	C	4D
R9673	B	C	4D
R9674	B	C	4D
R9675	A	C	4E
R9676	A	C	4E
R9677	B	C	4F
R9678	B	C	4F
R9679	B	C	4F
R9680	B	C	5F
R9681	B	C	2D
R9682	A	C	5D
R9683	A	C	5N
R9684	A	C	7F
R9685	B	C	4C
R9686	A	C	4C
R9687	B	C	4D
R9688	B	C	5C
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R9690	B	C	5D
R9691	A	C	7E
R9801	B	C	3C
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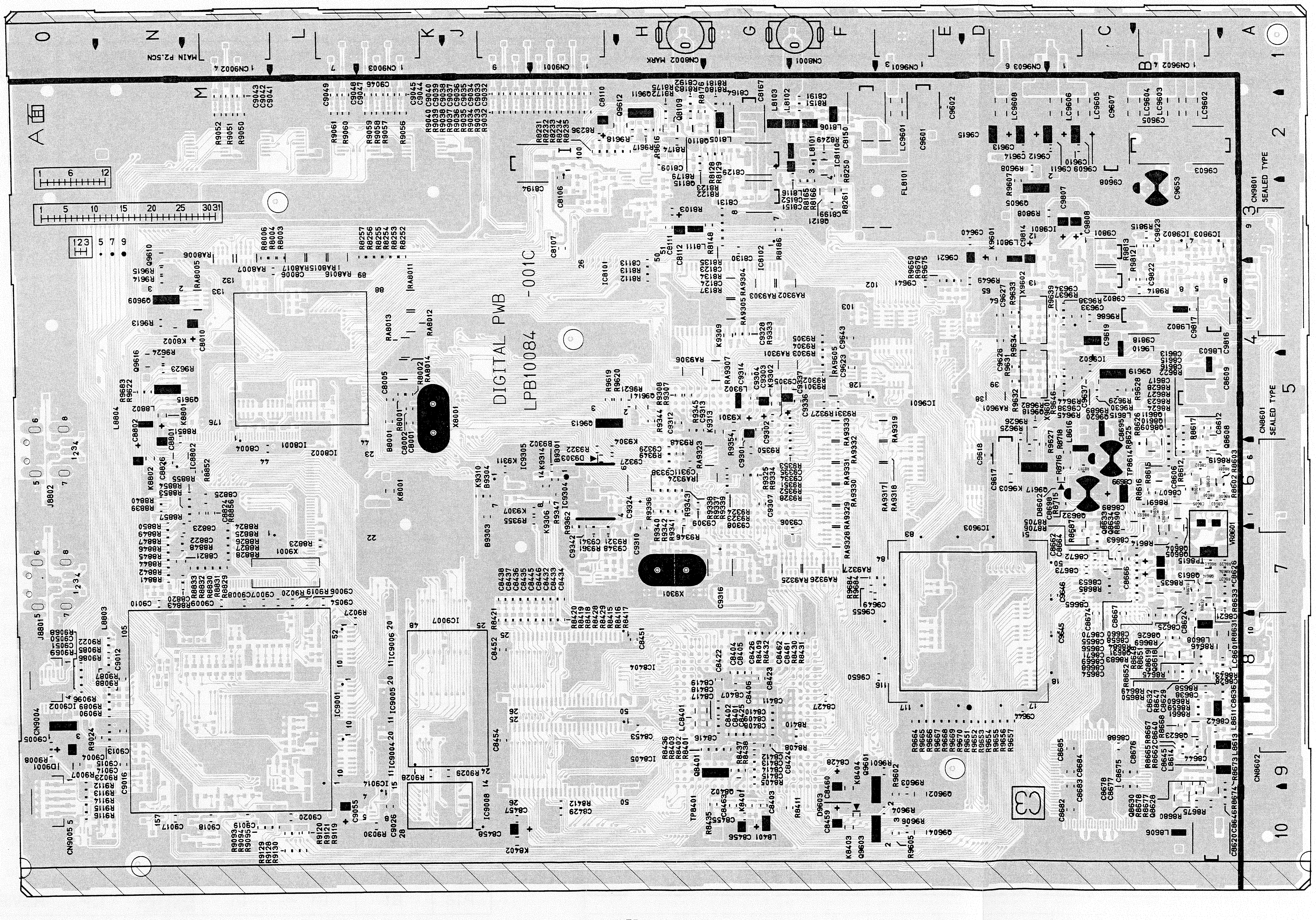
R9831	B	C	4B
R9832	B	C	3B
R9833	B	C	4B
R9834	B	C	3B
R9835	B	C	3B
R9836	B	C	3A
VR8601	A	D	7B
RESISTOR ARRAY			
RA8001	B	C	5L
RA8002	B	C	5L
RA8003	B	C	5M
RA8004	B	C	5L
RA8005	A	C	4M
RA8006	A	C	3M
RA8007	A	C	3M
RA8008	B	C	4M
RA8009	B	C	3M
RA8010	B	C	3M
RA8011	A	C	4K
RA8012	A	C	4K
RA8013	A	C	4K
RA8014	A	C	5K
RA8015	A	C	3L
RA8016	A	C	3L
RA8017	A	C	3L
RA8601	B	C	7D
RA8602	B	C	8D
RA8603	B	C	8D
RA8604	B	C	8D
RA8801	B	C	5N
RA8802	B	C	5N
RA9001	B	C	9L
RA9002	B	C	9L
RA9003	B	C	9L
RA9004	B	C	8L
RA9005	B	C	8L
RA9006	B	C	8L
RA9301	A	C	5G
RA9302	A	C	4G
RA9303	A	C	4G
RA9304	A	C	4G
RA9305	A	C	4G
RA9306	A	C	5H
RA9307	A	C	5G
RA9308	B	C	7G
RA9309	B	C	7F
RA9310	B	C	7F
RA9311	B	C	7F
RA9312	B	C	6F
RA9313	B	C	6F
RA9314	B	C	6F
RA9315	B	C	6F
RA9316	B	C	5F
RA9317	A	C	6E
RA9318	A	C	6E
RA9319	A	C	5E
RA9320	B	C	6E
RA9321	B	C	6E
RA9323	A	C	6G
RA9324	A	C	6H
RA9325	A	C	7G
RA9326	A	C	7F
RA9327	A	C	7F
RA9328	A	C	7F
RA9329	A	C	6F
RA9330	A	C	6F
RA9331	A	C	6F
RA9332	A	C	6F
RA9333	A	C	5F
RA9601	A	C	5D
RA9602	B	C	4E
RA9603	B	C	4E
RA9604	B	C	4E
RA9605	A	C	5F
RA9606	B	C	5E
RA9607	B	C	5F
RA9608	B	C	4E
RA9609	B	C	4E
RA9610	B	C	6D
RA9611	B	C	6D
RA9612	B	C	5D
TEST POINT			
TP8401	A	C	10H
TP8602	B	C	6A
TP8603	B	C	6A
TP8604	B	C	8A
TP8605	B	C	9A
TP8606	B	C	9A
TP8607	B	C	7A
TP8608	B	C	10M
TP8609	B	C	10L
TP8610	B	C	10L
TP8611	B	C	10L
TP8612	B	C	6B
TP8613	B	C	7B
TP8614	A	C	6B
TP8615	A	C	7B
TP9001	B	C	10L
TP9002	B	C	9L
TP9003	B	C	9L
TP9302	B	C	6J
TP9303	B	C	5F
OTHER			
FL8101	A	C	3F
K8001	A	C	6K
K8002	A	C	4N
K8101	B	C	2H
K8401	A	C	10G
K8402	A	C	10J
K8403	A	C	10F
K8404	A	C	10F
K8801	A	C	5N
K8802	A	C	6N
K9001	B	C	2J
K9002	B	C	8M
K9301	A	C	5G
K9302	A	C	5G
K9303	B	C	5F
K9304	A	C	6I
K9305	B	C	6I
K9306	A	C	6I
K9307	A	C	6J
K9308	B	C	6J
K9309	A	C	4G
K9310	A	C	6J
K9311	A	C	6J
K9312	B	C	5F
K9313	A	C	5G
K9314	A	C	6I
K9601	A	C	3D
K9602	B	C	4E
K9603	A	C	6D
LC8401	A	C	9H
LC8601	A	C	8B
LC9601	A	C	2E
LC9602	A	C	2B
LC9603	A	C	2B
LC9604	A	C	2C
LC9605	A	C	2C
LC9606	A	C	2C
LC9608	A	C	2D
TL8601	B	C	8C
TL9301	B	C	6H
X8001	A	D	5K
X8401	B	C	10G
X8801	B	C	8M
X9001	A	C	7L
X9301	A	D	7H
X9302	B	C	6I
X9601	A	C	5D
X9602	A	C	4D

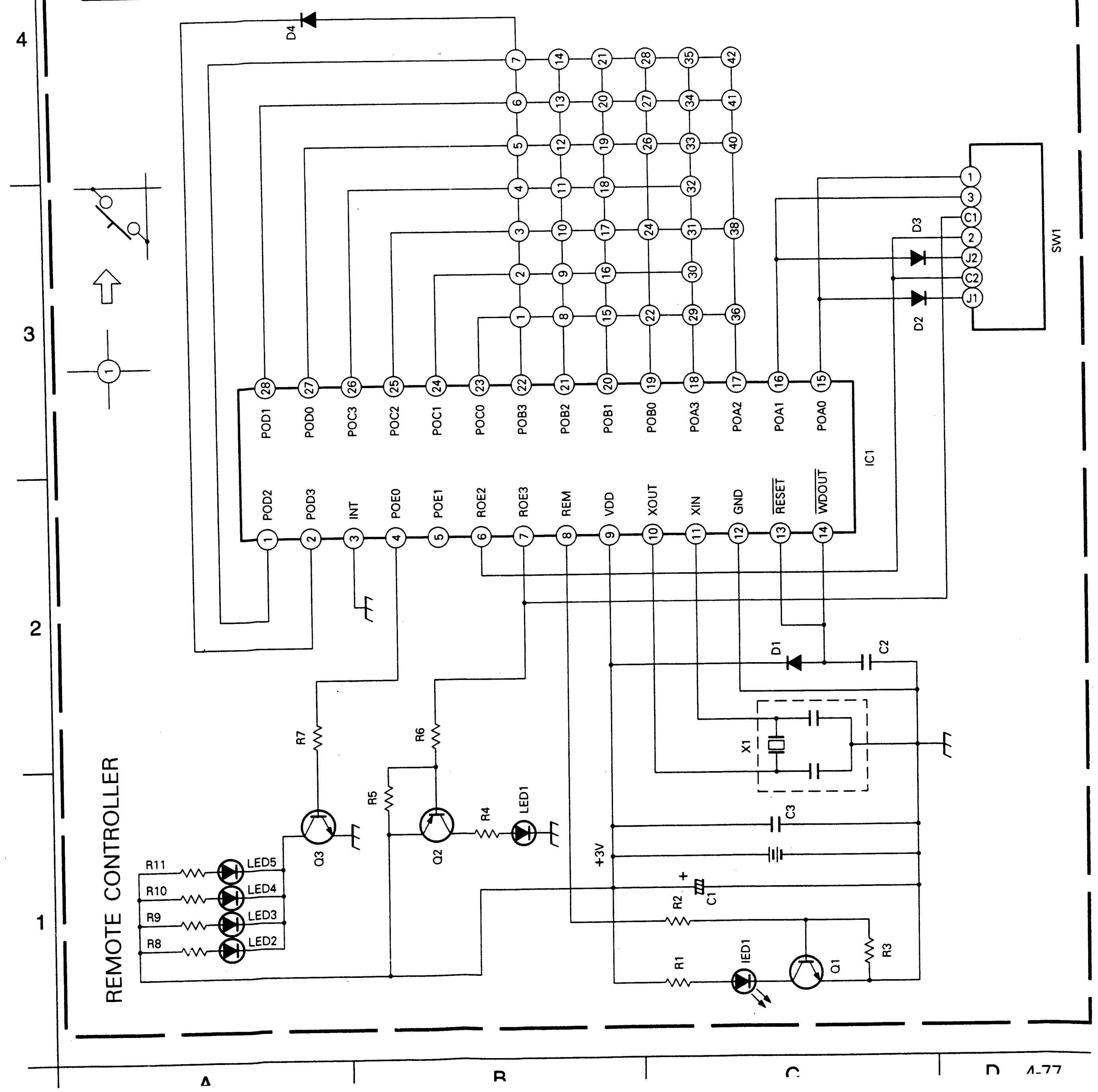
— COMPONENT SIDE (A) —


DIGITAL PWB
LPB10084 -001C
CN9801 SEALED TYPE
CN8601 SEALED TYPE
CN8002 MARK
MAIN P2.SCN

4.34 REMOTE CONTROL SCHEMATIC DIAGRAM

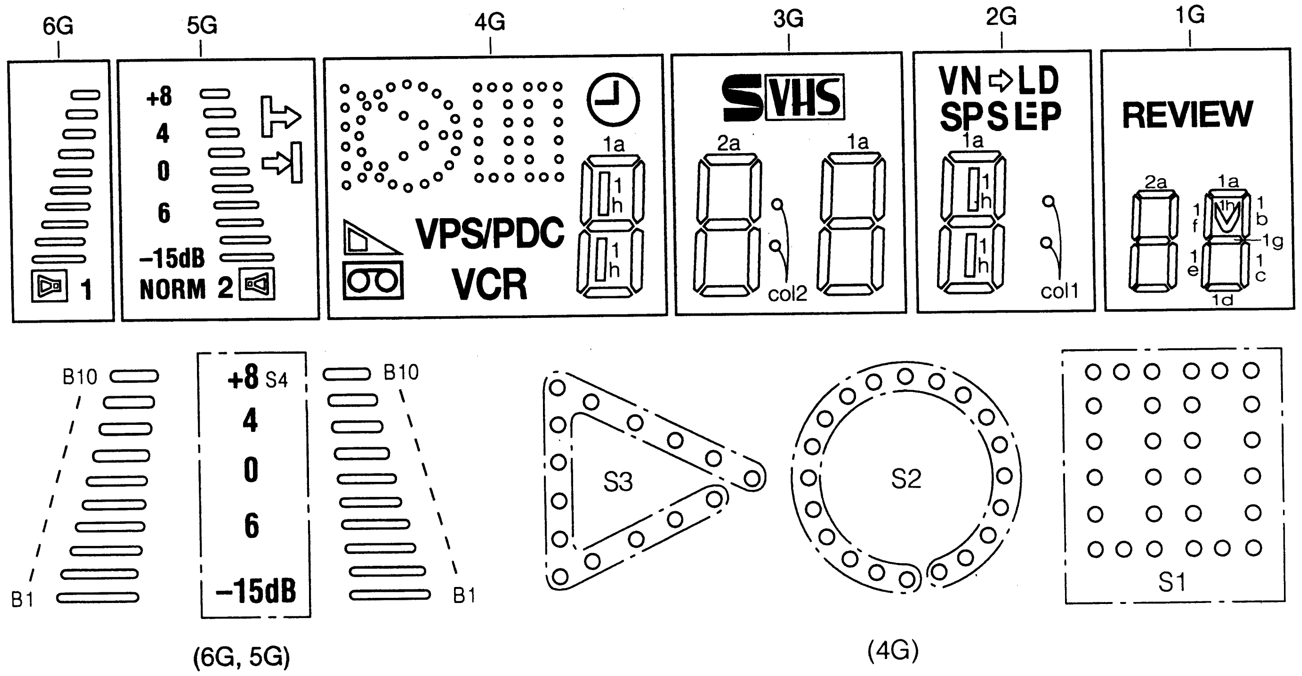
NOTES :
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.

Key No.	Key Name
1	MUTE
2	VCR/TV
3	1
4	4/START
5	7/VPS/PDC
6	SPEED
7	◀◀
8	TV POWER
9	AUDIO
10	2
11	5/STOP
12	8/DAILY
13	0
14	PLAY ▶
15	VCR POWER
16	SMART PICTURE
17	3
18	6/DATE
19	9/WEEKLY
20	CLEAR
21	▶▶
22	|◀◀ REW ◀
24	TV VOL +
26	TV VOL −
27	TIMER
28	JOG/SHTL
29	PROG. + ▲
30	PROG. − ▼
31	STOP
32	PAUSE/STILL
33	DISPLAY
34	MENU
35	OK
36	▶▶| FF ▶
38	TV CH +
40	TV CH −
41	TAPE MANAGER
42	RECORD


5
4
3
2
1
D4
D3
D2
D1
SW1
C1
C2
C3
J2
J1
IC1
POD1
POD0
POC3
POC2
POC1
POC0
POB3
POB2
POB1
POB0
POA3
POA2
POA1
POA0
POD2
POD3
INT
POE0
POE1
ROE2
ROE3
REM
VDD
XOUT
XIN
GND
RESET
WDOUT
X1
C3
C2
C1
R7
R6
R5
R4
R3
R2
R1
R11
R10
R9
R8
LED5
LED4
LED3
LED2
LED1
IED1
Q3
Q2
Q1
+3V
REMOTE CONTROLLER
A
B
C
D

4.35 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT


6G
5G
4G
3G
2G
1G
+8
4
0
6
−15dB
NORM 2
1
VPS/PDC
VCR
1a
2a
col2
VN⇨LD
SPSLP
col1
REVIEW
1a
1b
1f
1g
1c
1e
1h
1d
B10
B1
+8 S4
S3
S2
S1
(6G, 5G)
(4G)

ANODE CONNECTION

	6G	5G	4G	3G	2G	1G
P 1	—	⇨	S2	1a	1a	1a
P 2	—	⇨|	S1	1b	1b	1b
P 3	—	S4	S3	1f	1f	1f
P 4	—	**NORM**	**VPS/PDC**	1g	1g	1g
P 5	**1**	**2**	🕒	1c	1c	1c
P 6	▣	▣	◺	1e	1e	1e
P 7	B10	B10	📼	1d	1d	1d
P 8	B9	B9	**VCR**	col2	1h	1h
P 9	B8	B8	1a	2a	col1	2a
P10	B7	B7	1b	2b	⇨	2b
P11	B6	B6	1f	2f	**VN**	2f
P12	B5	B5	1g	2g	**LD**	2g
P13	B4	B4	1c	2c	**SP**	2c
P14	B3	B3	1e	2e	**S** (SEP)	2e
P15	B2	B2	1d	2d	**:** (SEP)	2d
P16	B1	B1	1h	**SVHS**	**LP**(SEP)	**REVIEW**

4.36 VOLTAGE CHARTS

< SW REG >

MODE PIN NO.	REC	PLAY
IC5101		
1	-	-
2	-	-
3	102.4	108.3
4	-	-
5	0	0
IC5301		
1	2.4	2.4
2	0	0
3	10.9	10.9
IC5302		
1	12.6	12.6
2	11.9	11.9
3	0	0
4	3.4	3.4
IC5303		
1	5.7	5.7
2	5.2	5.2
3	0	0
4	1.2	1.2
IC5304		
1	3.6	3.6
2	3.2	3.2
3	0	0
4	1.2	1.2
IC5305		
1	5.7	5.7
2	5.2	5.2
3	0	0
4	2.6	2.6
IC5306		
1	3.5	3.5
2	2.1	2.1
3	0	0
4	1.2	1.2
IC5307		
1	3.5	3.5
2	3.3	3.3
3	0	0
4	2.6	2.6
Q5301		
E	2.8	2.8
C	0	0
B	2.8	2.8
Q5302		
E	-16.7	-16.7
C	-16.7	-16.7
B	-16.0	-16.0
Q5303		
E	0	0
C	0	0
B	4.1	4.1
Q5304		
E	31.8	31.8
C	31.8	31.8
B	31.2	31.2
Q5305		
E	12.5	12.5
C	11.9	11.9
B	11.2	11.2
Q5308		
E	0	0
C	0	0
B	4.1	4.1
Q5310		
E	0	0
C	10.9	10.9
B	0	0
Q5311		
E	3.5	3.5
C	3.5	3.5
B	0.7	0.7
CN5301		
1	-15.2	-15.2
2	-28.0	-28.0
3	-19.0	-19.0
4	0	0
5	5.2	5.2
CN5303		
1	11.9	11.9
2	12.2	12.2
3	11.9	11.9
4	0	0
5	5.1	5.1
CN5304		
1	4.1	4.1
2	0	0
3	5.7	5.7
4	0	0
5	22.1	21.9
6	44.9	44.9
7	5.7	5.7
8	0	0
9	-9.2	-9.2
10	31.5	31.5
11	4.1	4.1
CN5305		
1	2.1	2.1
2	3.1	3.1
3	3.1	3.1
4	0	0
5	0	0
6	3.3	3.3
CN5306		
1	0	0
2	0	0
3	5.2	5.2
CN5307		
1	11.9	11.9
2	0	0
3	5.2	5.2
4	-10.0	-10.0

< VIDEO/N.AUDIO >

MODE PIN NO.	REC	PLAY
IC1		
1	2.5	2.5
2	2.5	2.5
3	0	0
4	2.4	2.4
5	0	0
6	2.8	2.8
7	2.5	2.5
8	2.5	2.5
9	2.5	2.5
10	2.4	2.4
11	2.4	2.4
12	5.0	5.0
13	1.9	1.4
14	1.9	1.4
15	2.6	3.0
16	1.5	0.7
17	1.8	1.2
18	2.3	2.3
19	3.0	3.0
20	2.7	2.7
21	2.3	2.3
22	1.9	1.9
23	3.0	3.0
24	2.1	2.1
25	1.4	1.4
26	2.1	2.1
27	0	0
28	5.0	5.0
29	1.7	1.9
30	2.7	2.7
31	2.8	2.8
32	0	0
33	0	0
34	0	0
35	3.0	3.0
36	5.0	5.0
37	0	0
38	5.0	5.0
39	3.3	3.3
40	5.0	5.0
41	5.0	5.0
42	1.9	1.9
43	5.0	5.0
44	2.6	2.6
45	0	0
46	2.0	2.0
47	0	0
48	0	0
49	0	0
50	0.4	0.4
51	0	0
52	1.4	2.4
53	3.1	2.9
54	2.0	2.0
55	2.1	2.1
56	2.8	2.5
57	0	0
58	3.0	3.0
59	3.4	3.4
60	2.1	2.1
61	5.0	5.0
62	4.6	4.6
63	4.6	4.6
64	0	0
65	0.9	2.6
66	5.0	5.0
67	5.0	5.0
68	0	0
69	2.8	2.8
70	2.7	2.7
71	2.1	2.1
72	2.3	2.1
73	-	-
74	2.7	1.0
75	-	-
76	2.3	2.3
77	4.5	4.5
78	2.8	2.8
79	4.3	2.1
80	0	0
81	2.5	-
82	1.2	1.2
83	2.3	2.3
84	0	1.3
85	0	0
86	2.3	2.3
87	2.3	2.3
88	2.3	2.3
89	2.3	2.3
90	5.0	5.0
91	0	0
92	0	0
93	0	0
94	0	0
95	0.4	0.6
96	5.0	5.0
97	0	0
98	4.4	4.4
99	0.5	2.6
100	2.9	2.5
IC2		
1	2.8	2.8
2	0	0
3	2.8	2.8
4	5.0	0
5	2.8	2.8
6	5.0	5.0
7	2.1	2.1
8	0	0
IC3		
1	2.8	2.8
2	0	0
3	2.8	2.8
4	0	0
5	0	0
6	5.0	5.0
7	2.0	2.0
8	0	0
IC4		
1	2.0	2.0
2	5.0	5.0
3	2.6	2.6
4	0	0
Q1		
E	3.4	3.4
C	0	0
B	2.8	2.8
Q6		
E	2.7	2.7
C	0	0
B	2.1	2.1
Q13		
E	1.1	1.1
C	3.9	3.9
B	1.7	1.7
Q14		
E	3.3	3.3
C	5.0	5.0
B	3.9	3.9
Q15		
E	3.9	3.9
C	0	0
B	3.3	3.3
Q16		
E	5.0	5.0
C	5.0	0
B	0	5.0
Q17		
E	0	0
C	0	0
B	2.7	2.7
Q18		
E	0	0
C	0	0
B	2.7	2.7
Q34		
E	2.3	2.3
C	2.3	2.3
B	0	0
Q35		
E	2.3	2.3
C	2.3	2.3
B	0	0
Q36		
E	0	0
C	0	0
B	0.7	0.7
Q37		
E	0	0
C	0	0
B	0.7	0.7
Q47		
D	5.0	5.0
G	2.3	2.1
S	3.5	3.5
Q48		
D	2.4	2.4
G	0	0
S	1.1	1.1
Q49		
E	2.1	2.1
C	5.0	5.0
B	2.8	2.8
Q55		
E	0	0
C	0	0
B	2.7	2.7
Q152		
E	5.0	2.7
C	0	0
B	4.3	2.1
Q159		
E	1.7	1.7
C	5.0	5.0
B	2.3	2.3
Q2001		
E	-14.1	0
C	0	0
B	-20.7	0.7
Q2002		
E	-14.1	0
C	0	0
B	-20.7	0.7
Q2003		
E	4.9	4.9
C	-20.5	4.9
B	4.9	0
Q2051		
E	0	0
C	8.6	0.2
B	0.4	0.2
Q2052		
E	11.9	11.9
C	11.7	11.7
B	11.1	11.8
Q2053		
E	0	0
C	0	11.8
B	4.9	0
Q2054		
E	11.7	0
C	11.5	0
B	10.9	0.7
Q2055		
E	0	0
C	0	0
B	4.8	4.8
CN1		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.3	2.3
6	2.3	2.3
7	2.3	2.3
8	2.3	2.3
CN101		
1	0	0
2	2.5	-
3	4.7	4.7
4	-	-
5	4.7	4.7
6	0	0
7	0	0
8	0	0
9	0.5	0.5
10	0	0
11	0	0
12	0	0
13	5.0	5.0
14	5.0	5.0
15	0	0
16	0	0
17	0.4	0.4
18	0	0
19	3.4	3.4
20	0.4	0
21	0	0
22	2.1	2.1
23	0	0
24	2.7	2.7
25	0	0
26	2.7	2.7
27	0	0
28	0	0
29	0	0
30	0.4	0
CN102		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	1.4	1.1
8	1.9	1.9
9	1.4	2.4
10	4.9	4.9
11	2.3	2.3
12	2.7	2.7
13	0	0
14	0	0
15	2.4	2.4
16	0	0
17	4.6	4.6
18	4.6	4.6
19	5.0	5.0
20	4.9	4.9
21	2.4	2.4
22	0	0
23	2.4	2.4
24	0	0
25	0	0
26	2.3	2.3
27	2.4	2.4
28	2.3	2.3
29	0	0
30	2.1	2.1
CN606		
1	0	0
2	0	0
3	0	0
4	4.9	4.9
5	4.9	4.9
6	11.9	11.9
7	4.8	4.8
8	-	-
9	5.2	0
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	2.3	2.5
7	2.3	2.5
CN2002		
1	0	0
2	0	0

< ON SCREEN >

MODE PIN NO.	REC	PLAY
IC201		
1	0	0
2	2.7	2.7
3	4.9	4.9
4	0	0
5	4.5	-
6	2.5	2.5
7	2.5	2.5
8	5.0	5.0
9	-	-
10	4.7	4.7
11	-	-
12	5.1	5.1
13	2.8	2.8
14	2.8	2.8
15	0	0
16	1.2	1.2
17	0	0
18	5.1	5.1
19	2.4	2.4
20	0	0
21	2.4	2.4
22	0.3	0.3
23	5.1	5.1
24	2.9	2.9
25	2.6	2.6
26	5.1	5.1
27	4.7	-
28	3.6	3.6
29	5.0	5.0
30	5.1	5.1
Q207		
E	3.0	3.0
C	0	0
B	2.4	2.4
Q208		
E	2.4	2.4
C	5.0	5.0
B	3.0	3.0

< FMA >

MODE PIN NO.	REC	PLAY
IC2201		
1	2.3	2.3
2	0	0
3	2.4	2.4
4	0	0
5	0	0
6	2.4	2.4
7	2.0	2.0
8	0	0
9	0	0
10	0	0
11	0	0
12	2.0	2.0
13	0	0
14	0	0
15	0	0
16	2.4	2.4
17	0.6	0.6
18	2.5	2.5
19	2.5	2.5
20	2.5	0
21	2.5	0
22	2.6	0.7
23	0	0
24	2.6	0.7
25	4.9	4.9
26	2.6	0
27	0	-
28	4.2	3.2
29	1.4	0.4
30	0	0
31	0	1.8
32	2.5	2.5
33	2.5	2.5
34	0.8	0.8
35	2.5	2.5
36	0	0
37	1.6	1.6
38	0	0
39	0	0
40	4.9	4.9
41	0	0
42	4.6	4.6
43	4.6	4.6
44	3.3	3.3
45	0	0
46	0	0
47	2.5	2.5
48	2.5	2.5
49	3.3	3.3
50	0.7	0.7
51	0	0
52	0	0
53	4.4	4.4
54	0	0
55	0	0
56	0	0
57	4.4	4.4
58	10.0	10.0
59	4.5	4.5
60	0	0
61	2.5	2.5
62	2.4	2.4
63	4.3	4.3
64	4.4	4.4
IC2601		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	-9.2	-9.2
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	5.0	5.0
IC2602		
1	0	0
2	0	0
3	0	0
4	-9.2	-9.2
5	0	0
6	0	0
7	0	0
8	5.0	5.0
Q2151		
E	1.5	1.5
C	5.0	5.0
B	2.1	2.1
Q2253		
E	0	0
C	0	0
B	4.5	0
Q2601		
E	5.0	5.0
C	0	-0.4
B	5.0	5.0
Q2602		
E	0	0
C	5.0	5.0
B	0	0
Q2603		
E	0	0
C	0	0
B	-0.4	0
Q2604		
E	0	0
C	0	0
B	-0.4	-0.4
Q2607		
E	0	0
C	0	0
B	-0.4	-0.4
Q2608		
E	0	0
C	0	0

MODE PIN NO.	REC	PLAY
B	-0.5	-0.5
CN607		
1	0	-
2	0	0
3	0	0
4	4.9	0
5	4.8	0.4
6	0	0
7	0	0
8	0	0
9	0	0
10	1.4	0.3
CN2601		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	2.4	2.4
8	0	0
9	0	0

< SYSCON >

MODE PIN NO.	REC	PLAY
IC3001		
1	-	2.5
2	0	0
3	-	2.5
4	2.5	2.5
5	2.5	2.5
6	2.5	2.5
7	2.5	2.5
8	2.5	2.5
9	5.0	5.0
10	5.0	5.0
11	0	0
12	0	0
13	0	1.3
14	4.7	4.7
15	4.9	4.9
16	0.7	0.7
17	3.3	3.3
18	0	0
19	4.7	0
20	4.4	4.4
21	4.1	4.1
22	4.1	3.2
23	0	0
24	0	0
25	5.0	5.0
26	0	0
27	5.0	5.0
28	4.9	4.9
29	5.2	5.2
30	0	0
31	5.0	5.0
32	0	0
33	0	0
34	-	-
35	0	0
36	4.3	4.3
37	4.8	4.8
38	1.2	1.2
39	4.3	-
40	0	0
41	5.0	5.0
42	4.8	4.8
43	0	0
44	5.0	5.0
45	5.0	5.0
46	5.1	5.1
47	0	0
48	4.9	4.9
49	4.7	4.7
50	4.7	4.7
51	4.9	4.9
52	-	-
53	4.4	-
54	-	-
55	-	-
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	-	-
65	-	-
66	-	-
67	-	-
68	0	0
69	-	-
70	4.9	4.9
71	4.9	4.9
72	-	-
73	4.9	4.9
74	0	0
75	-	-
76	4.6	4.6
77	0	0
78	0	0
79	0.5	0.5
80	0	0
81	0	0
82	5.0	5.0
83	-	-
84	0	0
85	0	0
86	4.6	4.6
87	0	0
88	4.9	0
89	0	0
90	2.6	2.6
91	-	-
92	-	-
93	0	0
94	5.0	5.0
95	5.0	5.0
96	5.1	5.1
97	0	0
98	0.3	0.3
99	0	-
100	-	-
101	2.5	2.5
102	1.2	1.2
103	4.9	4.9
104	0	0
105	0	0
106	0.2	0.2
107	0	0
108	1.6	1.6
109	5.0	5.0
110	0	0
111	0	0
112	2.5	2.5
IC3002		
1	4.9	4.9
2	4.9	4.9
3	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	-	-
6	-	-
7	0	0
8	5.0	5.0
IC3004		
1	0	0
2	12.2	12.2
3	-	-
4	-	-
5	0	0
6	12.2	12.2
7	-	-
8	12.2	12.2
9	0	0
IC3005		
1	-	-
2	0	0
3	0	0
4	0	0
5	4.9	4.9
6	-	-
7	1.2	1.2
8	5.0	5.0
Q3001		
E	0	0
C	12.2	12.2
B	0	0
Q3002		
E	0	0
C	4.7	4.7
Q3003		
E	0	0
C	4.9	4.9
Q3004		
E	0	0
C	0	0
B	0.7	0.7
Q3005		
E	5.0	5.0
C	5.7	5.7
B	5.6	5.6
Q3008		
E	0	0
C	4.8	4.8
B	0	0
Q3050		
E	0	0
C	0	0
B	4.9	4.9
Q4001		
E	0	0
C	0	0
B	4.5	4.5
CN3001		
1	11.9	11.9
2	0	0
3	1.4	1.4
4	0	0
5	1.6	1.6
CN3002		
1	0	0
2	0	0
CN3003		
1	2.5	2.5
2	5.0	5.0
3	5.0	5.0
4	2.5	2.5
5	11.4	11.4
6	0	0
7	-	-
8	0	0
CN3004		
1	0	0
2	5.0	5.0
3	5.0	5.0
4	-	-
5	0	0
CN3011		
1	0	0
2	0	0
3	0.2	0.2
4	5.0	5.0
5	5.0	5.0
6	5.0	5.0
7	5.0	5.0
8	5.0	5.0
9	5.0	5.0
10	5.0	5.0
11	0	0
12	0	0
13	0	0
14	0	0
15	5.2	5.2
16	4.2	4.2
17	1.5	1.5
18	4.9	4.9
19	4.5	4.5
20	5.0	5.0
21	5.0	5.0
22	0	0
CN3601		
1	11.9	11.9
2	12.2	12.2
3	11.9	11.9
4	0	0
5	5.1	5.1
CN3602		
1	2.6	2.6
2	-	-
3	-	-
4	0	0
5	4.8	4.8
6	0.4	0.4
7	0	0
8	0	0
9	5.1	5.1
CN3603		
1	0	0
2	0	0
3	0	0
4	0	0
CN3604		
1	4.1	4.1
2	0	0
3	5.7	5.7
4	0	0
5	22.1	21.9
6	44.9	44.9
7	5.7	5.7
8	0	0
9	-9.2	-9.2
10	31.5	31.5
11	4.1	4.1
CN3605		
1	5.2	0
2	1.2	1.2
3	-	-
4	-	-
5	0	0
6	5.0	5.0
7	4.8	4.8

< SYSCON SUB >

MODE PIN NO.	REC	PLAY
IC3301		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	5.0	5.0
11	5.0	5.0
12	-	-
13	-	-
14	0	0
15	0	0
16	5.0	5.0
17	0	0
18	0	0
19	0	0
20	0	0
21	5.0	5.0
22	-	-
23	-	-
24	0	0
25	0	0
26	-	-
27	5.2	5.2
28	0	0
29	0	0
30	0	0
31	0.5	0.5
32	0	0
33	-	-
34	0	0
35	0	0
36	0	0
37	0	0
38	0	0
39	4.7	4.7
40	0.4	0.4
41	0	0
42	5.0	5.0
43	5.2	5.2
44	0.4	0.4
45	5.0	5.0
46	0.4	0.4
47	5.0	5.0
48	5.0	5.0
49	0	0
50	0	0
51	5.0	5.0
52	0	0
53	4.9	4.9
54	0	0
55	0	0
56	4.9	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	4.9	4.9
63	5.0	5.0
64	0	0
65	0	0
66	4.9	4.9
67	0	0
68	0	0
69	4.9	4.9
70	0	0
71	4.9	4.9
72	0	4.9
73	3.1	3.1
74	3.1	3.1
75	5.0	0
76	0	0
77	0	0
78	5.0	5.0
79	5.0	0
80	5.0	5.0
81	5.0	5.0
82	5.0	5.0
83	5.0	5.0
84	0	0
85	0	0
86	0	0
87	0	5.0
88	0	5.0
89	5.0	5.0
90	0	5.0
91	0	0
92	0	0
93	0	0
94	0	0
95	0	0
96	0	0
97	0	0
98	0	0
99	0	0
100	5.0	5.0
IC3401		
1	0.6	0
2	-	-
3	-	-
4	4.9	4.9
5	4.9	4.9
6	0	0
7	0	0
8	0	0
9	-	-
10	0	0
11	0	0
12	4.4	4.4
13	0	0.2
14	4.4	4.4
15	-	-
16	5.0	5.0
IC3402		
1	0.5	0.3
2	5.0	5.0
3	4.2	3.1
4	4.2	3.1
5	0.4	0
6	0	0
7	0	0
8	0	0
9	4.9	4.9
10	0	0
11	0	0
12	5.0	5.0
13	0.4	0.4
14	5.0	5.0
15	5.0	5.0
16	5.0	5.0
IC3403		
1	0	0
2	0	0
3	0	0
4	5.0	5.0
5	5.0	5.0
6	5.0	5.0
7	0.4	0.4
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	5.0	5.0
24	5.0	5.0
25	5.0	5.0
26	0	0
27	0	0
28	5.0	5.0
CN3606		
1	-	-
2	0	0
3	4.6	4.6
4	5.2	5.2

< TUNER >

MODE PIN NO.	REC	PLAY
IC6080		
1	1.3	1.3
2	1.3	1.3
3	2.8	2.8
4	0	0
5	4.1	4.1
6	4.1	4.1
7	4.1	4.1
8	11.9	11.9
Q6030		
E	0.8	0.8
C	0	0
B	0	0
Q6031		
E	0	0
C	0	0
B	4.8	4.8
Q6032		
E	0	0
C	0	0
B	4.9	4.9
CN6701		
1	0	0
2	4.6	-
3	-	-
4	4.9	4.9
5	0	0
6	0	0
7	5.0	5.0
8	0	0
9	0	0
10	2.4	2.4

< BS TUNER >

MODE PIN NO.	REC	PLAY
Q5301		
E	22.0	22.0
C	11.4	11.4
B	22.0	22.0
Q5302		
E	0	0
C	22.0	22.0
B	0	0
Q5303		
E	5.2	5.2
C	5.7	5.7
B	5.9	5.9
Q5304		
E	10.9	10.9
C	12.2	12.2
B	11.6	11.6
Q5305		
E	12.2	12.2
C	12.2	12.2
B	2.3	2.3
Q5307		
E	0	0
C	0	0
B	4.1	4.1

< TERMINAL(MAIN) >

MODE PIN NO.	REC	PLAY
CN7501		
1	0	0
2	2.3	2.3
3	0	0
4	2.1	2.1
5	0	0
6	-	-
7	-	-
8	0	0
9	5.0	5.0
10	4.8	4.8
11	0	0
12	0	0
13	0	0
14	10.9	10.9
15	5.2	5.2
16	-9.3	-9.3
17	5.0	5.0
CN7502		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	2.7	2.7
8	0	0
9	2.7	2.7
10	0	0
11	1.4	1.1
12	0	0
13	0.7	0.7
14	0	0
15	2.4	2.4
16	0	0
17	0	0
CN7503		
1	0	0
2	0	0
3	0	0
4	5.0	5.0
5	5.2	5.2
6	5.2	5.2
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	4.3	4.3
17	4.3	4.3
CN7504		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

MODE PIN NO.	REC	PLAY
7	0	0
8	0	0

< 3D SVHS(VIDEO) >

MODE PIN NO.	REC	PLAY
IC1001		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
IC1002		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
IC1006		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
IC1007		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC1008		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
Q1004		
E	-	-
C	-	-
B	-	-
Q1005		
E	-	-
C	-	-
B	-	-
Q1006		
E	-	-
C	-	-
B	-	-
Q1007		
E	-	-
C	-	-
B	-	-
Q1012		
E	2.4	2.4
C	4.9	4.9
B	3.0	3.0
Q1014		
E	-	-
C	-	-
B	-	-
Q1015		
E	-	-
C	-	-
B	-	-
Q1016		
E	-	-
C	-	-
B	-	-
Q1021		
E	-	-
C	-	-
B	-	-
Q1022		
E	-	-
C	-	-
B	-	-
Q1025		
E	-	-
C	-	-
B	-	-
Q1026		
E	-	-
C	-	-
B	-	-
CN1001		
1	0	0
2	2.5	-
3	4.7	4.7
4	-	-
5	4.7	4.7
6	0	0
7	0	0
8	0	0
9	0.5	0.5
10	0	0
11	0	0
12	0	0
13	5.0	5.0
14	5.0	5.0
15	0	0
16	0	0
17	0.4	0.4
18	0	0
19	3.4	3.4
20	0.4	0
21	0	0
22	2.1	2.1
23	0	0
24	2.7	2.7
25	0	0
26	2.7	2.7
27	0	0
28	0	0
29	0	0
30	0.4	0
CN1002		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	1.4	1.1
8	1.9	1.9
9	1.4	2.4
10	4.9	4.9
11	2.3	2.3
12	2.7	2.7
13	0	0
14	0	0
15	2.4	2.4
16	0	0
17	4.6	4.6
18	4.6	4.6
19	5.0	5.0
20	4.9	4.9
21	2.4	2.4
22	0	0
23	2.4	2.4
24	0	0
25	0	0
26	2.3	2.3
27	2.4	2.4
28	2.3	2.3
29	0	0
30	2.1	2.1
CN1006		
1	2.4	2.4
2	0	0
3	2.6	2.6
4	0	0
5	2.8	2.8
6	0	0

< 3D SVHS(3D/TBC) >

MODE PIN NO.	REC	PLAY
IC1401		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
65	-	-
66	-	-
67	-	-
68	-	-
69	-	-
70	-	-
71	-	-
72	-	-
73	-	-
74	-	-
75	-	-
76	-	-
77	-	-
78	-	-
79	-	-
80	-	-
81	-	-
82	-	-
83	-	-
84	-	-
85	-	-
86	-	-
87	-	-
88	-	-
89	-	-
90	-	-
91	-	-
92	-	-
93	-	-
94	-	-
95	-	-
96	-	-
97	-	-
98	-	-
99	-	-
100	-	-
IC1402		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
Q1401		
E	-	-
C	-	-
B	-	-
Q1402		
E	-	-
C	-	-
B	-	-
Q1403		
E	-	-
C	-	-
B	-	-
Q1404		
E	-	-
C	-	-
B	-	-
Q1405		
E	-	-
C	-	-
B	-	-
Q1406		
E	-	-
C	-	-
B	-	-
Q1407		
E	-	-
C	-	-
B	-	-
Q1408		
E	-	-
C	-	-
B	-	-
Q1409		
E	-	-
C	-	-
B	-	-
Q1410		
E	-	-
C	-	-
B	-	-
Q1411		
E	-	-
C	-	-
B	-	-
Q1412		
E	-	-
C	-	-
B	-	-
Q1413		
E	-	-
C	-	-
B	-	-
Q1414		
E	-	-
C	-	-
B	-	-
Q1416		
E	-	-
C	-	-
B	-	-
Q1417		
E	-	-
C	-	-
B	-	-
Q1418		
E	-	-
C	-	-
B	-	-

< TERMINAL >

MODE PIN NO.	REC	PLAY
IC3961		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC3962		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
IC7101		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
IC7102		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	-4.9	-4.9
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	5.2	5.2
IC7103		
1	6.1	6.1
2	2.9	2.9
3	6.0	6.0
4	0	0
5	-	-
6	-	-
7	-	-
8	-	-
IC7104		
1	-	-
2	-	-
3	-	-
4	-	-
5	5.2	5.2
6	2.3	2.3
7	2.1	2.1
8	2.6	2.6
Q7101		
E	-	-
C	-	-
B	-	-
Q7102		
E	-	-
C	-	-
B	-	-
Q7103		
E	0.6	0.6
C	9.7	9.7
B	1.2	1.2
Q7104		
E	-	-
C	-	-
B	-	-
Q7105		
E	-	-
C	-	-
B	-	-
Q7106		
E	-	-
C	-	-
B	-	-
Q7107		
E	2.7	2.7
C	0	0
B	2.1	2.1
Q7108		
E	2.7	2.7
C	0	0
B	2.1	2.1
CN7101		
1	0	0
2	0	0
3	0	0
4	5.0	5.0
5	5.2	5.2
6	5.2	5.2
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	4.3	4.3
17	4.3	4.3
CN7102		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	2.7	2.7
8	0	0
9	2.7	2.7
10	0	0
11	1.4	1.1
12	0	0
13	0.7	0.7
14	0	0
15	2.4	2.4
16	0	0
17	0	0
CN7103		
1	0	0
2	2.3	2.3
3	0	0
4	2.1	2.1
5	0	0
6	-	-
7	-	-
8	0	0
9	5.0	5.0
10	4.8	4.8
11	0	0
12	0	0
13	0	0

MODE PIN NO.	REC	PLAY
14	10.9	10.9
15	5.2	5.2
16	-9.3	-9.3
17	5.0	5.0

< DEMOD >

MODE PIN NO.	REC	PLAY
IC6701		
1	2.5	0
2	2.5	4.8
3	5.0	0
4	0	4.9
5	0	0
6	4.9	4.9
7	0	0
8	4.9	0
9	0	5.0
10	4.9	2.5
11	0	2.5
12	4.9	4.9
13	0	0
14	0	0
15	3.5	3.5
16	2.5	2.5
17	0	0
18	2.2	2.2
19	0	0
20	0	0
21	4.8	4.8
22	0	0
23	2.3	2.3
24	2.3	2.3
25	2.3	2.3
26	4.8	4.8
27	0	0
28	4.9	4.9
29	4.5	4.5
30	4.6	4.6
31	0	0
32	4.8	4.8
33	4.8	4.8
34	0.7	0.7
35	4.8	4.8
36	0	0
37	4.8	4.8
38	2.5	2.5
39	2.5	2.5
40	2.5	2.5
41	2.5	2.5
42	4.8	4.8
43	5.0	5.0
44	0	0
Q6701		
E	1.9	1.9
C	5.0	5.0
B	2.6	2.6
CN6701		
1	0	0
2	4.6	-
3	-	-
4	4.9	4.9
5	0	0
6	0	0
7	5.0	5.0
8	0	0
9	0	0
10	2.4	2.4

< DISPLAY >

MODE PIN NO.	REC	PLAY
IC7001		
1	5.2	5.2
2	2.2	2.2
3	0	0
4	2.2	2.2
5	5.2	5.2
6	0.2	0.2
7	5.2	5.2
8	0	0
9	5.2	5.2
10	5.2	5.2
11	5.2	5.2
12	4.2	4.2
13	1.6	1.6
14	4.9	4.9
15	4.4	4.4
16	-28.0	-28.0
17	-28.0	-28.0
18	4.9	4.9
19	-27.8	-27.8
20	-27.8	-27.8
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	5.2	5.2
IC7002		
1	5.2	5.2
2	5.2	5.2
3	0	0
Q7001		
E	5.2	5.2
C	5.0	5.0
B	0.1	0.1
Q7002		
E	5.2	5.2
C	0	0
B	5.0	5.0
Q7003		
E	5.2	5.2
C	0	0
B	5.0	5.0
CN7001		
1	0	0
2	5.0	5.0
3	5.0	5.0
4	4.5	4.5
5	4.9	4.9
6	1.5	1.5
7	4.2	4.2
8	5.2	5.2
9	0	0
10	0	0
11	0	0
12	0	0
13	5.0	5.0
14	5.0	5.0
15	5.0	5.0
16	5.0	5.0
17	5.0	5.0
18	5.0	5.0
19	5.0	5.0
20	0.2	0.2
21	0	0
22	0	0
CN7002		
1	-15.2	-15.2
2	-28.0	-28.0
3	-19.0	-19.0
4	0	0
5	5.2	5.2
CN7003		
1	0	0
2	0	0
3	0	0
4	5.2	5.2
CN7004		
1	0	0
2	0	0
3	0	0
4	0	0
5	5.0	5.0
6	-0.2	-0.2
7	-0.3	-0.3
8	4.2	4.2
9	5.0	5.0
10	5.0	5.0
11	5.0	5.0
12	5.0	5.0
13	5.0	5.0
14	0	0
15	5.2	5.2
16	5.2	5.2
17	5.2	5.2
18	0	0
19	5.2	5.2
20	5.2	5.2
21	5.2	5.2
22	5.2	5.2
FW7001		
1	5.0	5.0
2	0	0
FW7002		
1	0	0
2	0	0
3	0	0

< REC SAFETY >

MODE PIN NO.	REC	PLAY
FW7011		
1	5.0	5.0
2	0	0

< CASS SW >

MODE PIN NO.	REC	PLAY
FW7012		
1	0	0
2	0	0
3	0	0

< JACK >

MODE PIN NO.	REC	PLAY
CN7101		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
CN7102		
1	0	0
2	0	0
3	0	0
4	0	0
5	5.2	5.2
6	5.2	5.2
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
CN7103		
1	0	0
2	0	0
3	0	0
4	5.2	5.2

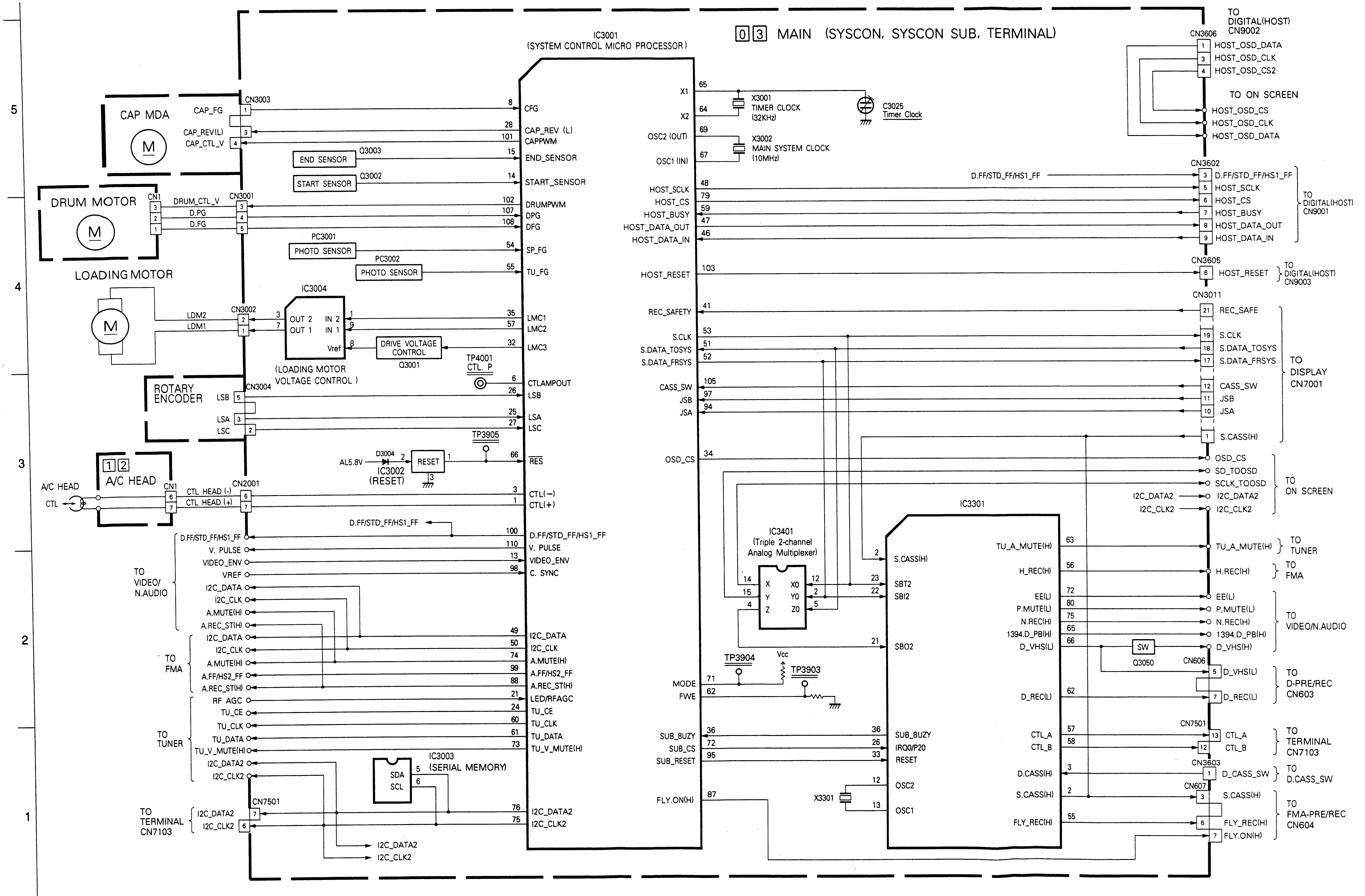
< D-PRE/REC >

MODE PIN NO.	REC	PLAY
IC601		
1	2.6	2.6
2	4.1	4.1
3	4.9	4.9
4	2.9	2.9
5	4.9	4.9
6	4.1	4.1
7	2.6	2.6
8	2.6	2.6
9	1.3	1.3
10	2.8	2.8
11	3.2	3.2
12	2.9	2.9
13	3.2	3.2
14	2.8	2.8
15	1.3	1.3
16	3.0	3.0
17	-	-
18	0	0
19	2.3	2.3
20	4.3	4.3
21	3.5	3.5
22	0	0
23	2.8	2.8
24	4.9	4.9
25	4.4	4.4
26	0	0
27	4.9	4.9
28	4.9	4.9
29	2.8	2.8
30	4.9	4.9
IC602		
1	0	0
2	0	0
3	0	0
4	0	0
5	-	-
6	-	-
7	-	-
8	-	-
Q601		
E	-	-
C	-	-
B	-	-
Q602		
E	-	-
C	-	-
B	-	-
Q603		
E	-	-
C	-	-
B	-	-
Q604		
E	-	-
C	-	-
B	-	-
Q605		
E	-	-
C	-	-
B	-	-
Q606		
E	-	-
C	-	-
B	-	-
Q607		
E	-	-
C	-	-
B	-	-
Q608		
E	-	-
C	-	-
B	-	-
Q609		
E	-	-
C	-	-
B	-	-
Q610		
E	-	-
C	-	-
B	-	-
Q611		
E	-	-
C	-	-
B	-	-
Q612		
E	-	-
C	-	-
B	-	-
Q613		
E	-	-
C	-	-
B	-	-
Q614		
E	-	-
C	-	-
B	-	-
Q615		
E	-	-
C	-	-
B	-	-
Q616		
E	-	-
C	-	-
B	-	-
Q617		
E	-	-
C	-	-
B	-	-
Q618		
E	-	-
C	-	-
B	-	-
Q619		
E	-	-
C	-	-
B	-	-
Q620		
E	-	-
C	-	-
B	-	-
Q621		
E	-	-
C	-	-
B	-	-
Q622		
E	-	-
C	-	-
B	-	-
Q623		
E	-	-
C	-	-
B	-	-
Q624		
E	-	-
C	-	-
B	-	-
Q625		
E	-	-
C	-	-
B	-	-
CN601		
1	0	0
2	0.8	0.8
CN602		
1	0	0
2	0.8	0.8
CN603		
1	0	0
2	0	0
3	0	0
4	4.9	4.9
5	4.9	4.9
6	11.9	11.9
7	4.8	4.8
8	-	-
9	5.2	0
CN605		
1	0	0
2	0	0
3	0	0
4	0	0
5	4.1	0
6	4.1	0
7	4.1	0

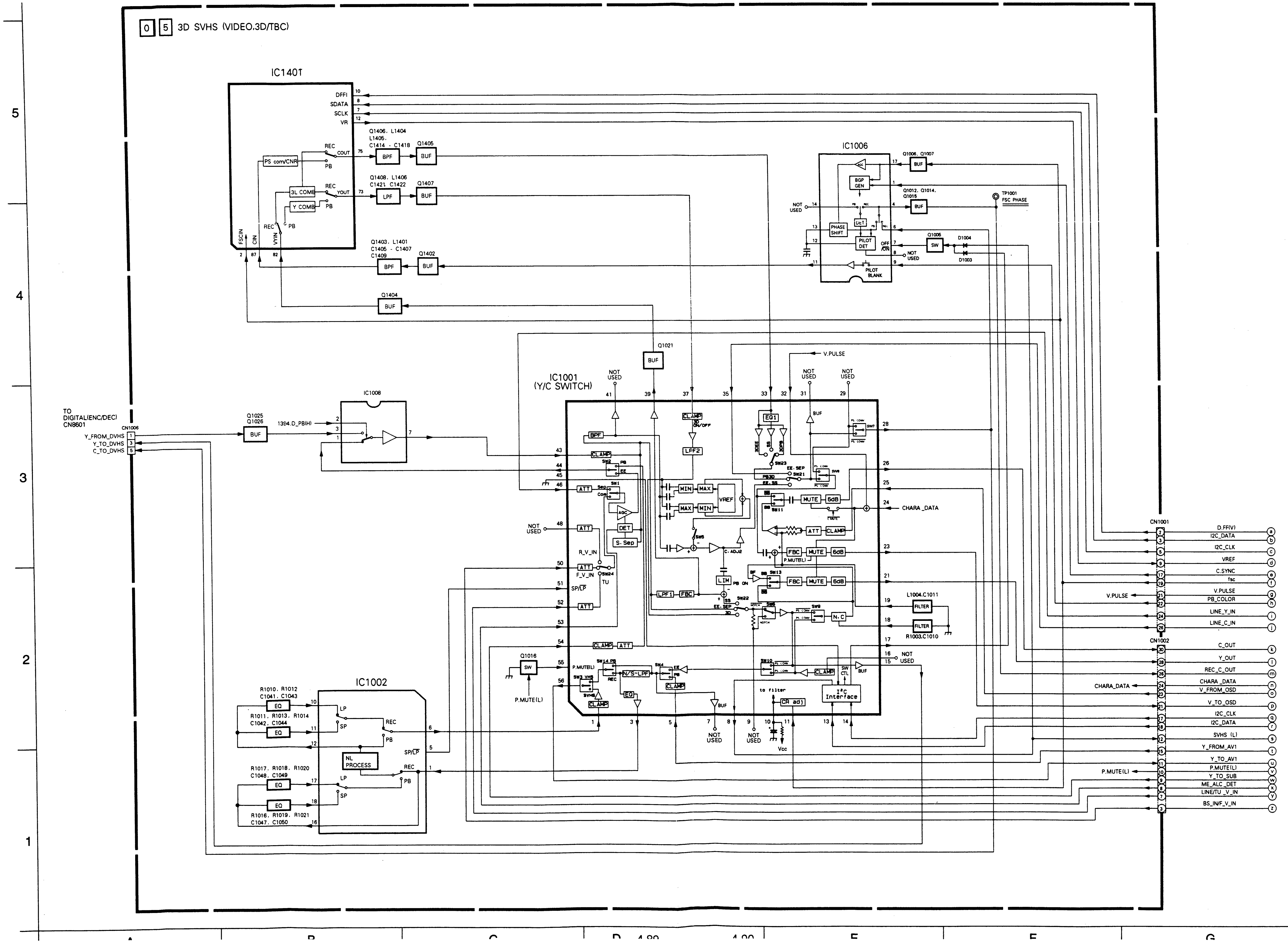
< FMA-PRE/REC >

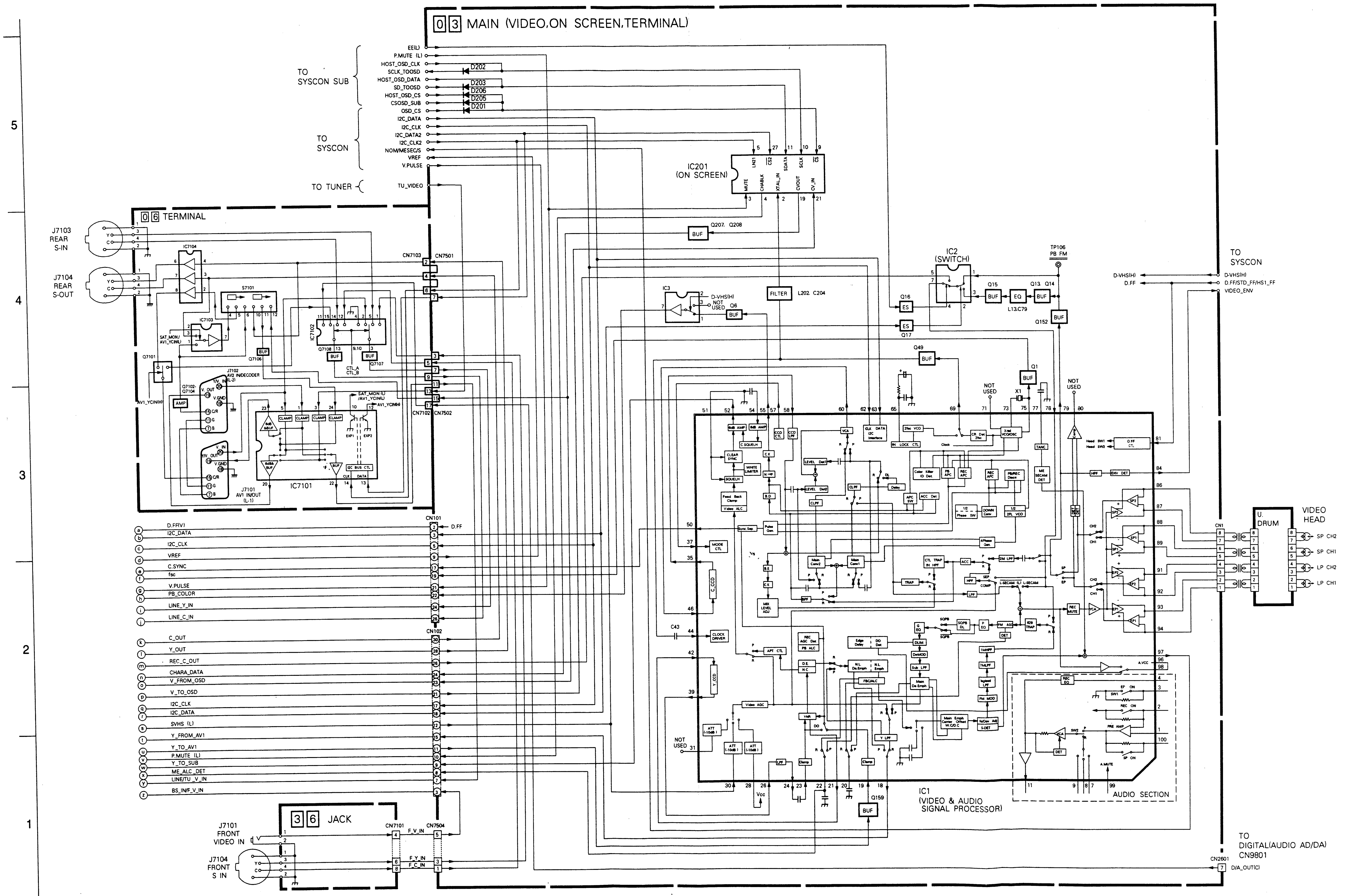
MODE PIN NO.	REC	PLAY
IC2271		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	0.5	0
10	4.9	4.9
11	3.0	3.0
12	0	0
13	1.8	0.9
14	1.8	1.8
15	0.8	0
16	4.8	1.1
Q1701		
E	-	-
C	-	-
B	-	-
Q1702		
E	-	-
C	-	-
B	-	-
Q1703		
E	-	-
C	-	-
B	-	-
Q1704		
E	-	-
C	-	-
B	-	-
Q1705		
E	-	-
C	-	-
B	-	-
Q1706		
E	-	-
C	-	-
B	-	-
Q2271		
E	-	-
C	-	-
B	-	-
Q2272		
E	-	-
C	-	-
B	-	-
Q2273		
E	-	-
C	-	-
B	-	-
Q2277		
E	-	-
C	-	-
B	-	-
Q2278		
E	-	-
C	-	-
B	-	-
Q2279		
E	-	-
C	-	-
B	-	-
Q2280		
E	-	-
C	-	-
B	-	-
Q2281		
E	-	-
C	-	-
B	-	-
Q2282		
E	-	-
C	-	-
B	-	-
Q2283		
E	-	-
C	-	-
B	-	-
CN604		
1	0	-
2	0	0
3	0	0
4	4.9	0
5	4.8	0.4
6	0	0
7	0	0
8	0	0
9	0	0
10	1.4	0.3

4.37 SYSTEM CONTROL BLOCK DIAGRAM


03 MAIN (SYSCON, SYSCON SUB, TERMINAL)
IC3001
(SYSTEM CONTROL MICRO PROCESSOR)
CAP MDA
CAP_FG
CAP_REV(L)
CAP_CTL_V
CN3003
CFG
CAP_REV (L)
CAPPWM
END SENSOR
Q3003
END_SENSOR
START SENSOR
Q3002
START_SENSOR
DRUM MOTOR
CN1
DRUM_CTL_V
D.PG
D.FG
CN3001
DRUMPWM
DPG
DFG
PC3001
PHOTO SENSOR
SP_FG
PC3002
PHOTO SENSOR
TU_FG
LOADING MOTOR
IC3004
LDM2
LDM1
CN3002
OUT 2
OUT 1
IN 2
IN 1
Vref
DRIVE VOLTAGE CONTROL
Q3001
(LOADING MOTOR VOLTAGE CONTROL)
LMC1
LMC2
LMC3
TP4001
CTL. P
CTLAMPOUT
ROTARY ENCODER
CN3004
LSB
LSA
LSC
TP3905
AL5.8V
D3004
RESET
IC3002
(RESET)
RES
12 A/C HEAD
A/C HEAD
CTL
CTL HEAD (-)
CTL HEAD (+)
CN2001
CTL(-)
CTL(+)
D.FF/STD_FF/HS1_FF
V. PULSE
VIDEO_ENV
VREF
C. SYNC
TO VIDEO/ N.AUDIO
I2C_DATA
I2C_CLK
A.MUTE(H)
A.REC_ST(H)
TO FMA
A.FF/HS2_FF
TO TUNER
RF AGC
TU_CE
TU_CLK
TU_DATA
TU_V_MUTE(H)
I2C_DATA2
I2C_CLK2
LED/RFAGC
IC3003
(SERIAL MEMORY)
SDA
SCL
TO TERMINAL CN7103
CN7501
X1
X2
OSC2 (OUT)
OSC1 (IN)
X3001
TIMER CLOCK
(32KHz)
C3025
Timer Clock
X3002
MAIN SYSTEM CLOCK
(10MHz)
HOST_SCLK
HOST_CS
HOST_BUSY
HOST_DATA_OUT
HOST_DATA_IN
HOST_RESET
REC_SAFETY
S.CLK
S.DATA_TOSYS
S.DATA_FRSYS
CASS_SW
JSB
JSA
OSD_CS
MODE
FWE
TP3904
Vcc
TP3903
SUB_BUZY
SUB_CS
SUB_RESET
FLY.ON(H)
IC3401
(Triple 2-channel Analog Multiplexer)
X0
Y0
Z0
IC3301
S.CASS(H)
SBT2
SBI2
SBO2
SUB_BUZY
IRQ0/P20
RESET
OSC2
OSC1
X3301
TU_A_MUTE(H)
H_REC(H)
EE(L)
P.MUTE(L)
N.REC(H)
1394.D_PB(H)
D_VHS(L)
D_REC(L)
CTL_A
CTL_B
D.CASS(H)
S.CASS(H)
FLY_REC(H)
SW
Q3050
TO DIGITAL(HOST) CN9002
CN3606
HOST_OSD_DATA
HOST_OSD_CLK
HOST_OSD_CS2
TO ON SCREEN
HOST_OSD_CS
CN3602
TO DIGITAL(HOST) CN9001
CN3605
TO DIGITAL(HOST) CN9003
CN3011
REC_SAFE
TO DISPLAY CN7001
S.CASS(H)
SD_TOOSD
SCLK_TOOSD
TO ON SCREEN
TO TUNER
H.REC(H)
TO FMA
D_VHS(H)
TO VIDEO/N.AUDIO
CN606
TO D-PRE/REC CN603
TO TERMINAL CN7103
CN3603
D_CASS_SW
TO D.CASS_SW
CN607
FLY_REC(H)
FLY.ON(H)
TO FMA-PRE/REC CN604
5
4
3
2
1

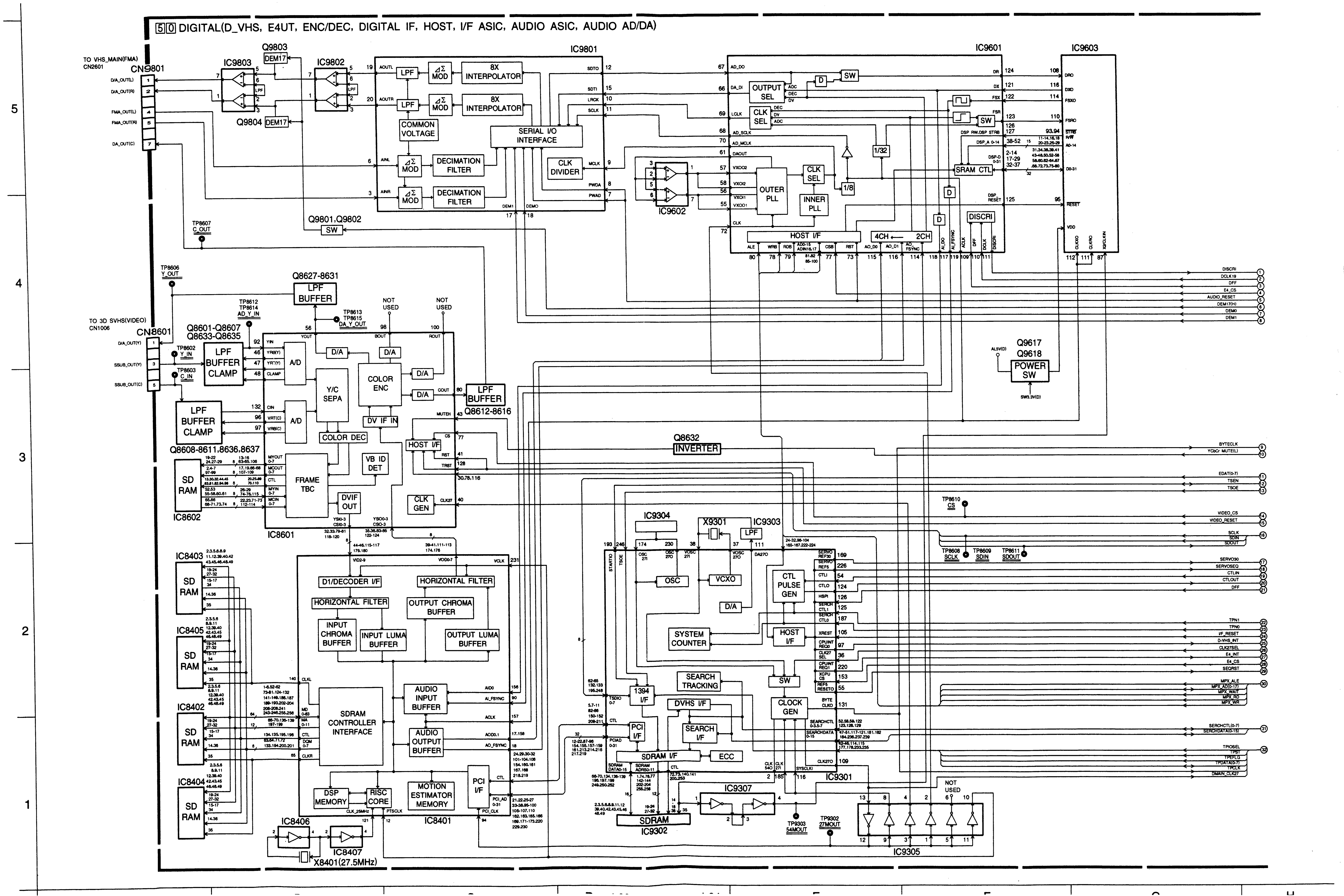
4.38 VIDEO BLOCK DIAGRAM (VHS)

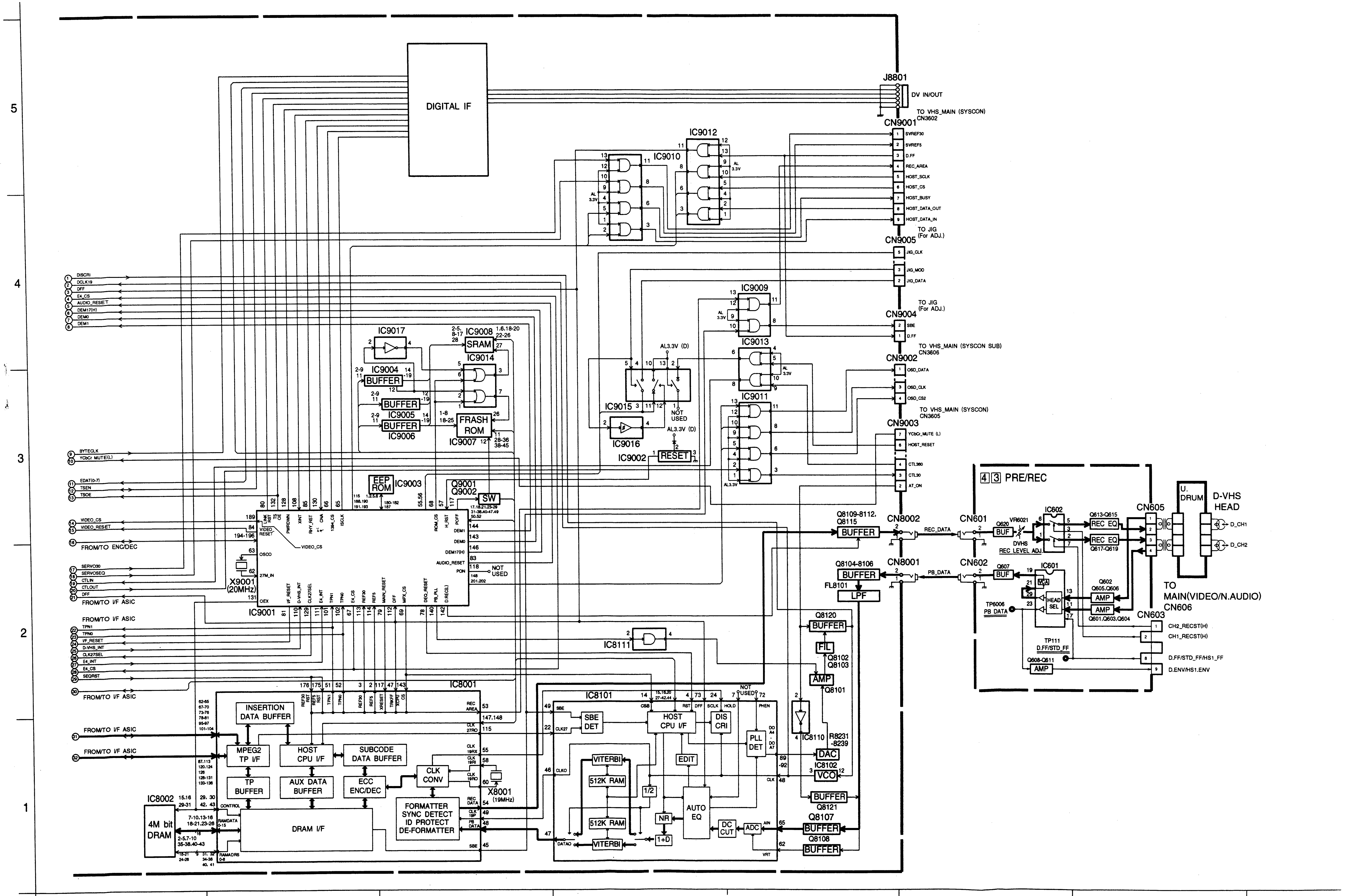

0 5 3D SVHS (VIDEO.3D/TBC)
IC1401
DFFI
SDATA
SCLK
VR
10
8
7
12
PS com/CNR
3L COMB
Y COMB
REC
PB
COUT
YOUT
75
73
FSCIN
CIN
VYIN
2
87
82
Q1406, L1404
L1405,
C1414 - C1418
Q1405
BPF
BUF
Q1408, L1406
C1421, C1422
Q1407
LPF
Q1403, L1401
C1405 - C1407
C1409
Q1402
Q1404
IC1006
AGC
BGP GEN
DET
PHASE SHIFT
PILOT DET
PILOT BLANK
OFF /ON
NOT USED
Q1006, Q1007
Q1012, Q1014,
Q1015
Q1005
SW
D1004
D1003
TP1001
FSC PHASE
17
1
4
6
7
8
9
14
13
12
11
IC1008
1394.D_PB(H)
TO DIGITAL(ENC/DEC)
CN8601
CN1006
Y_FROM_DVHS
Y_TO_DVHS
C_TO_DVHS
Q1025
Q1026
Q1021
V.PULSE
IC1001
(Y/C SWITCH)
NOT USED
41
39
37
35
33
32
31
29
CLAMP
3D ON/OFF
LPF2
EQ1
3DEE
SS
3DPB
SW23
EE.SEP
SW21
PB3D
EE.SS
SW8
SW7
PS CONV
BPF
43
44
45
46
48
50
51
52
53
54
55
56
SW2
PB
EE
ATT
SW1
Sep
Com
AGC
DET
S.Sep
R_V_IN
F_V_IN
SW24
TU
SP/LP
MIN
MAX
VREF
SW11
MUTE
6dB
C.MUTE
SW5
C.ADJ2
LIM
PB ON
FBC
P.MUTE(L)
SW13
BF
LPF1
SW22
EE.SEP
3D
NOTCH
SW6
SW9
N.C
28
26
25
24
23
21
19
18
17
16
15
CHARA_DATA
L1004.C1011
FILTER
R1003.C1010
SW14 PB
REC
SW3 VHS
SVHS
N/S-LPF
SW4
EQ
BUF
SW10
SW CTL
I2C Interface
to filter
CR adj
Vcc
1
3
5
7
8
9
10
11
13
14
Q1016
P.MUTE(L)
IC1002
R1010, R1012
C1041, C1043
R1011, R1013, R1014
C1042, C1044
R1017, R1018, R1020
C1048, C1049
R1016, R1019, R1021
C1047, C1050
EQ
LP
SP
REC
PB
NL PROCESS
SP/LP
10
11
12
17
18
16
6
5
1
CN1001
2 D.FF(V) a
3 I2C_DATA b
5 I2C_CLK c
9 VREF d
17 C.SYNC e
19 fsc f
21 V.PULSE g
22 PB_COLOR h
24 LINE_Y_IN i
26 LINE_C_IN j
CN1002
30 C_OUT k
28 Y_OUT l
26 REC_C_OUT m
24 CHARA_DATA n
23 V_FROM_OSD o
21 V_TO_OSD p
17 I2C_CLK q
18 I2C_DATA r
12 SVHS (L) s
15 Y_FROM_AV1 t
11 Y_TO_AV1 u
10 P.MUTE(L) v
9 Y_TO_SUB w
8 ME_ALC_DET x
7 LINE/TU_V_IN y
3 BS_IN/F_V_IN z
V.PULSE
CHARA_DATA
P.MUTE(L)
5
4
3
2
1



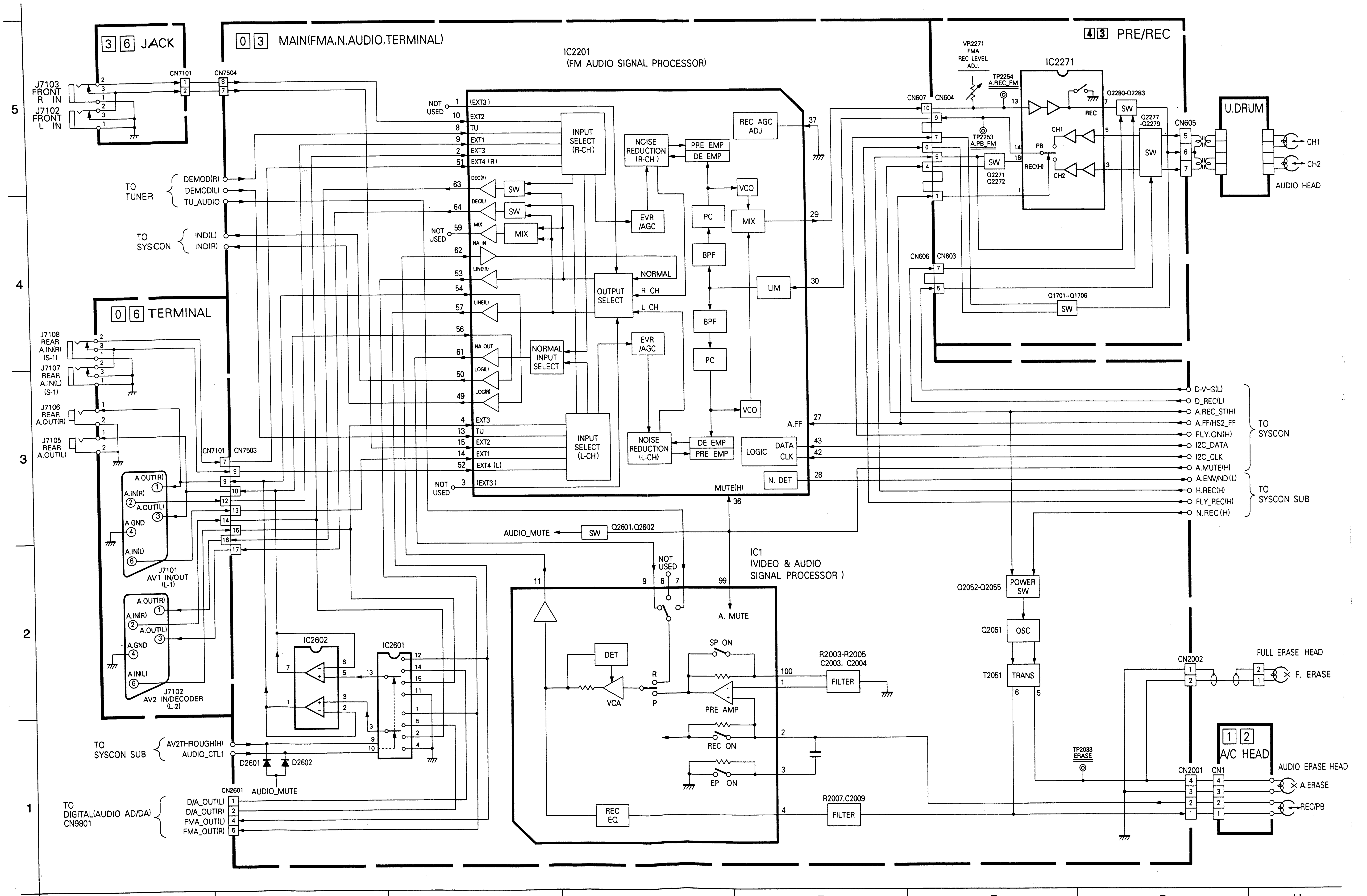
0 3 MAIN (VIDEO,ON SCREEN,TERMINAL)
TO SYSCON SUB
EE(L)
P.MUTE (L)
HOST_OSD_CLK
SCLK_TOOSD
HOST_OSD_DATA
SD_TOOSD
HOST_OSD_CS
CSOSD_SUB
D202
D203
D206
D205
D201
TO SYSCON
OSD_CS
I2C_DATA
I2C_CLK
I2C_DATA2
I2C_CLK2
NOM/MESEC/S
VREF
V.PULSE
TO TUNER
TU_VIDEO
IC201 (ON SCREEN)
LN21
CS2
SDATA
SCLK
CS
MUTE
CHABLK
XTAL_IN
CVOUT
CV_IN
Q207, Q208
BUF
0 6 TERMINAL
J7103 REAR S-IN
J7104 REAR S-OUT
IC7104
IC7103
S7101
SAT_MON/AV1_YCIN(L)
Q7101
Q7102-Q7104
AMP
J7102 AV2 IN/DECODER (L-21)
V_OUT
V_IN
Y/V_IN
Y/V_OUT
V.GND
C/R
G
B
AV1_YCIN(H)
IC7102
Q7106
Q7108
Q7107
CTL_A
CTL_B
SAT_MON(L) /AV1_YCIN(L)
AV1_YCIN(H)
CLAMP
6dB &BUF
6dBx BUF
I2C BUS CTL
CLK
DATA
EXP1
EXP2
IC7101
J7101 AV1 IN/OUT (L-1)
CN7103
CN7501
CN7102
CN7502
CN101
D.FF(V)
I2C_DATA
I2C_CLK
VREF
C.SYNC
fsc
V.PULSE
PB_COLOR
LINE_Y_IN
LINE_C_IN
D.FF
CN102
C_OUT
Y_OUT
REC_C_OUT
CHARA_DATA
V_FROM_OSD
V_TO_OSD
I2C_CLK
I2C_DATA
SVHS (L)
Y_FROM_AV1
Y_TO_AV1
P.MUTE (L)
Y_TO_SUB
ME_ALC_DET
LINE/TU_V_IN
BS_IN/F_V_IN
a b c d e f g h i j k l m n o p q r s t u v w x y z
3 6 JACK
J7101 FRONT VIDEO IN
J7104 FRONT S IN
CN7101
CN7504
F_V_IN
F_Y_IN
F_C_IN
IC3
D-VHS(H)
NOT USED
Q6
FILTER
L202 C204
Q16
ES
Q17
IC2 (SWITCH)
TP106 PB FM
Q15
EQ
Q13 Q14
L13,C79
Q152
Q49
Q1
NOT USED
X1
IC1 (VIDEO & AUDIO SIGNAL PROCESSOR)
C43
CLOCK DRIVER
MODE CTL
C_CCD
Y_CCD
NOT USED
Vcc
Q159
AUDIO SECTION
A.VCC
A.MUTE
PRE AMP
SW1
SW2
EP ON
REC ON
SP ON
REC EQ
DET
VCA
Head SW1
Head SW2
D.FF CTL
HPF
ENV DET
SP1
SP2
EP1
EP2
CH1
CH2
REC MUTE
TO SYSCON
D-VHS(H)
D.FF
D.FF/STD_FF/HS1_FF
VIDEO_ENV
CN1
U. DRUM
VIDEO HEAD
SP CH2
SP CH1
LP CH2
LP CH1
TO DIGITAL(AUDIO AD/DA) CN9801
CN2601
D/A_OUT(C)
1 2 3 4 5
A B C D E F G H

4.39 VIDEO BLOCK DIAGRAM(D-VHS)


50 DIGITAL(D_VHS, E4UT, ENC/DEC, DIGITAL IF, HOST, I/F ASIC, AUDIO ASIC, AUDIO AD/DA)
TO VHS_MAIN(FMA) CN2601
CN9801
D/A_OUT(L)
D/A_OUT(R)
FMA_OUT(L)
FMA_OUT(R)
DA_OUT(C)
IC9803
Q9803
DEM17
Q9804
IC9802
IC9801
LPF
ΔΣ MOD
8X INTERPOLATOR
COMMON VOLTAGE
SERIAL I/O INTERFACE
DECIMATION FILTER
CLK DIVIDER
SDTO
SDTI
LRCK
SCLK
MCLK
PWDA
PWAD
DEM1
DEMO
TP8607 C_OUT
Q9801,Q9802
SW
IC9601
OUTPUT SEL
CLK SEL
OUTER PLL
INNER PLL
IC9602
HOST I/F
4CH ← 2CH
1/32
1/8
D
SW
SRAM CTL
DISCRI
IC9603
TP8606 Y_OUT
Q8627-8631
LPF BUFFER
TP8612 TP8614 AD_Y_IN
TP8613 TP8615 DA_Y_OUT
NOT USED
TO 3D SVHS(VIDEO) CN1006
CN8601
Q8601-Q8607 Q8633-Q8635
TP8602 Y_IN
TP8603 C_IN
LPF BUFFER CLAMP
A/D
Y/C SEPA
COLOR ENC
D/A
COLOR DEC
DV IF IN
LPF BUFFER
Q8612-8616
HOST I/F
VB ID DET
FRAME TBC
DVIF OUT
CLK GEN
Q8608-8611,8636,8637
SD RAM
IC8602
IC8601
Q8632
INVERTER
Q9617 Q9618
POWER SW
AL5V(D)
SW3.3V(D)
IC8403
IC8405
IC8402
IC8404
D1/DECODER I/F
HORIZONTAL FILTER
OUTPUT CHROMA BUFFER
INPUT CHROMA BUFFER
INPUT LUMA BUFFER
OUTPUT LUMA BUFFER
SDRAM CONTROLLER INTERFACE
AUDIO INPUT BUFFER
AUDIO OUTPUT BUFFER
DSP MEMORY
RISC CORE
MOTION ESTIMATOR MEMORY
PCI I/F
IC8401
IC8406
IC8407
X8401(27.5MHz)
IC9304
X9301
IC9303
LPF
OSC
VCXO
D/A
CTL PULSE GEN
SYSTEM COUNTER
HOST I/F
SW
SEARCH TRACKING
1394 I/F
DVHS I/F
CLOCK GEN
PCI I/F
SEARCH I/F
SDRAM I/F
ECC
IC9301
IC9307
SDRAM
IC9302
TP9303 54MOUT
TP9302 27MOUT
IC9305
NOT USED
TP8610 CS
TP8608 SCLK
TP8609 SDIN
TP8611 SDOUT
DISCRI
DCLK19
DFF
E4_CS
AUDIO_RESET
DEM1T(H)
DEMO
DEM1
BYTECLK
YCbCr MUTE(L)
EDAT(0-7)
TSEN
TSOE
VIDEO_CS
VIDEO_RESET
SCLK
SDIN
SDOUT
SERVO30
SERVOSEQ
CTLIN
CTLOUT
DFF
TPN1
TPN0
I/F_RESET
D-VHS_INT
CLK27SEL
E4_INT
E4_CS
SEGRST
MPX_ALE
MPX_AD(0-17)
MPX_WAIT
MPX_RD
MPX_WR
SERCHCTL(0-7)
SERCHDATA(0-15)
TPIOSEL
TPST
TPEFLG
TPDATA(0-7)
TPCLK
DMAIN_CLK27
5
4
3
2
1


DIGITAL IF
J8801
DV IN/OUT
TO VHS_MAIN (SYSCON) CN3602
CN9001
SVREF30
SVREFS
D.FF
REC_AREA
HOST_SCLK
HOST_CS
HOST_BUSY
HOST_DATA_OUT
HOST_DATA_IN
TO JIG (For ADJ.)
CN9005
JIG_CLK
JIG_MOD
JIG_DATA
CN9004
SBE
D.FF
TO VHS_MAIN (SYSCON SUB) CN3606
CN9002
OSD_DATA
OSD_CLK
OSD_CS2
TO VHS_MAIN (SYSCON) CN3605
CN9003
YCbCr_MUTE (L)
HOST_RESET
CTL360
CTL30
AT_ON
IC9012
IC9010
IC9009
IC9013
IC9011
IC9015
IC9016
IC9002
RESET
AL3.3V (D)
NOT USED
AL 3.3V
IC9017
IC9004
BUFFER
IC9005
IC9006
IC9008
SRAM
IC9014
FRASH ROM
IC9007
EEP ROM
IC9003
Q9001
Q9002
SW
IC9001
X9001 (20MHz)
VIDEO_CS
NOT USED
DISCRI
DCLK19
DFF
E4_CS
AUDIO_RESET
DEM17(H)
DEM0
DEM1
BYTECLK
YCbCr MUTE(L)
EDAT(0-7)
TSEN
TSOE
VIDEO_CS
VIDEO_RESET
FROM/TO ENC/DEC
SERVO30
SERVOSEQ
CTLIN
CTLOUT
DFF
FROM/TO I/F ASIC
TPN1
TPN0
I/F_RESET
D-VHS_INT
CLK27SEL
E4_INT
E4_CS
SEQRST
IC8111
IC8001
INSERTION DATA BUFFER
MPEG2 TP I/F
HOST CPU I/F
SUBCODE DATA BUFFER
TP BUFFER
AUX DATA BUFFER
ECC ENC/DEC
CLK CONV
FORMATTER SYNC DETECT ID PROTECT DE-FORMATTER
DRAM I/F
X8001 (19MHz)
IC8002
4M bit DRAM
IC8101
SBE DET
HOST CPU I/F
DIS CRI
PLL DET
EDIT
VITERBI
512K RAM
1/2
NR
1+D
AUTO EQ
DC CUT
ADC
IC8110
R8231 -8239
DAC
IC8102
VCO
Q8120
BUFFER
FIL
Q8102 Q8103
AMP
Q8101
Q8121
Q8107
Q8108
Q8109-8112, Q8115
Q8104-8106
FL8101
LPF
CN8002
CN8001
REC_DATA
PB_DATA
4 3 PRE/REC
CN601
CN602
Q620
BUF
VR6021
DVHS REC LEVEL ADJ.
IC602
Q613-Q615
REC EQ
Q617-Q619
Q607
IC601
VCA
HEAD SEL
Q602 Q605,Q606
Q601,Q603,Q604
TP6006 PB DATA
TP111 D.FF/STD_FF
Q608-Q611
CN605
U. DRUM
D-VHS HEAD
D_CH1
D_CH2
TO MAIN(VIDEO/N.AUDIO) CN606
CN603
CH2_RECST(H)
CH1_RECST(H)
D.FF/STD_FF/HS1_FF
D.ENV/HS1.ENV
1
2
3
4
5
A
B
C
D
E
F
G
H

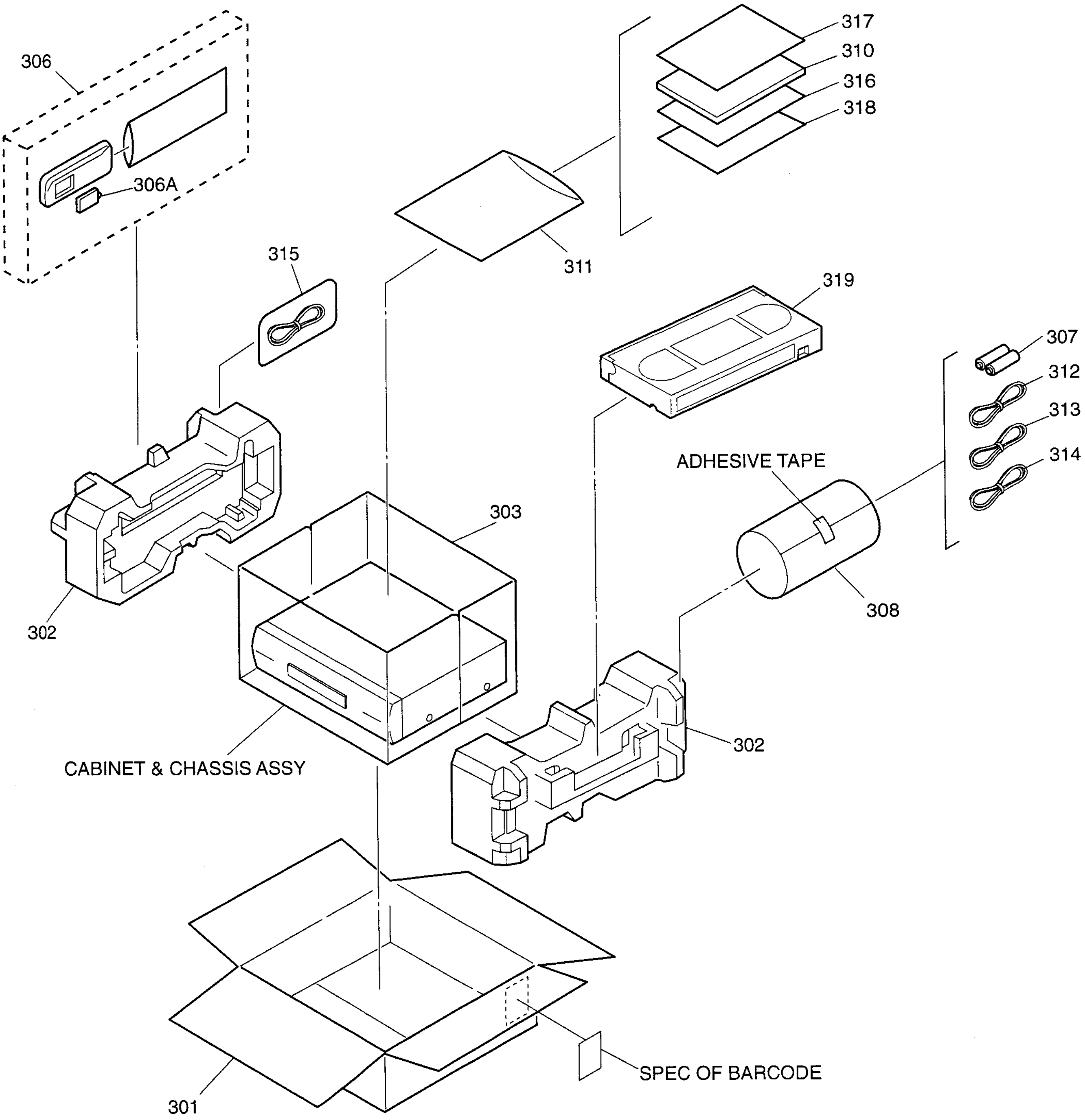
4.40 AUDIO BLOCK DIAGRAM



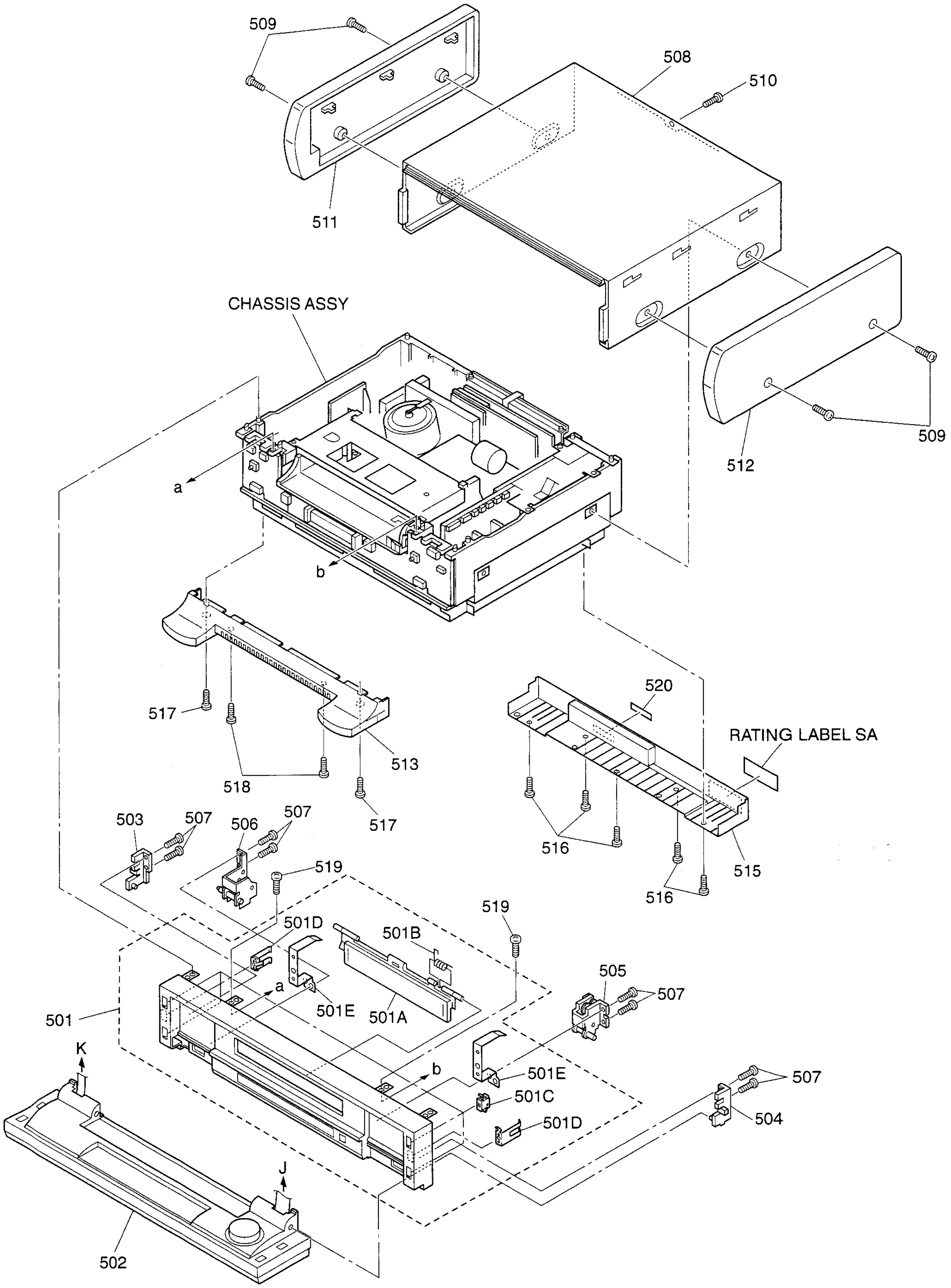
36 JACK
03 MAIN(FMA,N.AUDIO,TERMINAL)
43 PRE/REC
06 TERMINAL
12 A/C HEAD
IC2201
(FM AUDIO SIGNAL PROCESSOR)
IC2271
IC1
(VIDEO & AUDIO SIGNAL PROCESSOR)
IC2602
IC2601
J7103 FRONT R IN
J7102 FRONT L IN
CN7101
CN7504
CN7503
J7108 REAR A.IN(R) (S-1)
J7107 REAR A.IN(L) (S-1)
J7106 REAR A.OUT(R)
J7105 REAR A.OUT(L)
J7101 AV1 IN/OUT (L-1)
J7102 AV2 IN/DECODER (L-2)
A.OUT(R)
A.IN(R)
A.OUT(L)
A.GND
A.IN(L)
TO TUNER
DEMOD(R)
DEMOD(L)
TU_AUDIO
TO SYSCON
IND(L)
IND(R)
NOT USED
EXT3
EXT2
TU
EXT1
EXT4 (R)
EXT4 (L)
DEC(R)
DEC(L)
MIX
NA IN
LINE(R)
LINE(L)
NA OUT
LOG(L)
LOG(R)
SW
INPUT SELECT (R-CH)
INPUT SELECT (L-CH)
NCISE REDUCTION (R-CH)
NOISE REDUCTION (L-CH)
PRE EMP
DE EMP
REC AGC ADJ
EVR /AGC
PC
BPF
VCO
LIM
OUTPUT SELECT
NORMAL
R CH
L CH
NORMAL INPUT SELECT
LOGIC
DATA
CLK
N. DET
A.FF
MUTE(H)
AUDIO_MUTE
Q2601,Q2602
VR2271 FMA REC LEVEL ADJ.
TP2254 A.REC_FM
TP2253 A.PB_FM
CN607
CN604
CN606
CN603
CN605
REC
PB
REC(H)
CH1
CH2
Q2280-Q2283
Q2277 -Q2279
Q2271 Q2272
Q1701-Q1706
U.DRUM
AUDIO HEAD
D-VHS(L)
D_REC(L)
A.REC_ST(H)
A.FF/HS2_FF
FLY.ON(H)
I2C_DATA
I2C_CLK
A.MUTE(H)
A.ENV/ND(L)
H.REC(H)
FLY_REC(H)
N.REC (H)
TO SYSCON SUB
Q2052-Q2055
POWER SW
Q2051
OSC
T2051
TRANS
CN2002
FULL ERASE HEAD
F. ERASE
TP2033 ERASE
CN2001
CN1
AUDIO ERASE HEAD
A.ERASE
REC/PB
A. MUTE
DET
VCA
R
P
SP ON
PRE AMP
REC ON
EP ON
REC EQ
R2003-R2005 C2003, C2004
FILTER
R2007,C2009
TO SYSCON SUB
AV2THROUGH(H)
AUDIO_CTL1
D2601
D2602
TO DIGITAL(AUDIO AD/DA) CN9801
CN2601
D/A_OUT(L)
D/A_OUT(R)
FMA_OUT(L)
FMA_OUT(R)
A
B
C
D
E
F
G
H
1
2
3
4
5

SECTION 5
PARTS LIST

5.1 PACKING AND ACCESSORY ASSEMBLY


306
306A
315
311
317
310
316
318
319
307
312
313
314
ADHESIVE TAPE
303
308
302
302
CABINET & CHASSIS ASSY
SPEC OF BARCODE
301

5.2 CABINET ASSEMBLY


509
508
510
511
CHASSIS ASSY
512
509
a
b
520
RATING LABEL SA
517
513
518
517
503
507
506
507
519
516
515
516
519
501D
501B
505
507
501
a
501E
501A
K
b
501E
501C
507
501D
504
J
502

1. ACCESSORIES <M1>

306	996500002040	REMOTE CONTROLLER
306A	996500000970	COVER(BATTERY)
310	996500002041	INST BOOK(EN)
	996500002042	INST BOOK(GE)
	996500002043	INST BOOK(FR)
	996500002044	INST BOOK(DU)
	996500002045	INST BOOK(SP)
	996500002046	INST BOOK(IT)
	996500002047	INST BOOK(SW)
313	996500002048	S CABLE
315	996500001185	PERI CABLE

2. CABINET ASSEMBLY <M2>

501	! 996500002049	FRONT PANEL ASSY
501A	996500002050	CASSETTE DOOR
501B	996500002051	TORSION SPRING
501C	996500002052	MAGNET ASSY,X4
502	996500002053	DOOR ASSY
503	996500002054	SHAFT(L) ASSY
504	996500002055	SHAFT(R) ASSY
505	996500002056	DAMP UNIT ASSY
506	996500002057	SHAFT ASSY

3. CHASSIS ASSEMBLY

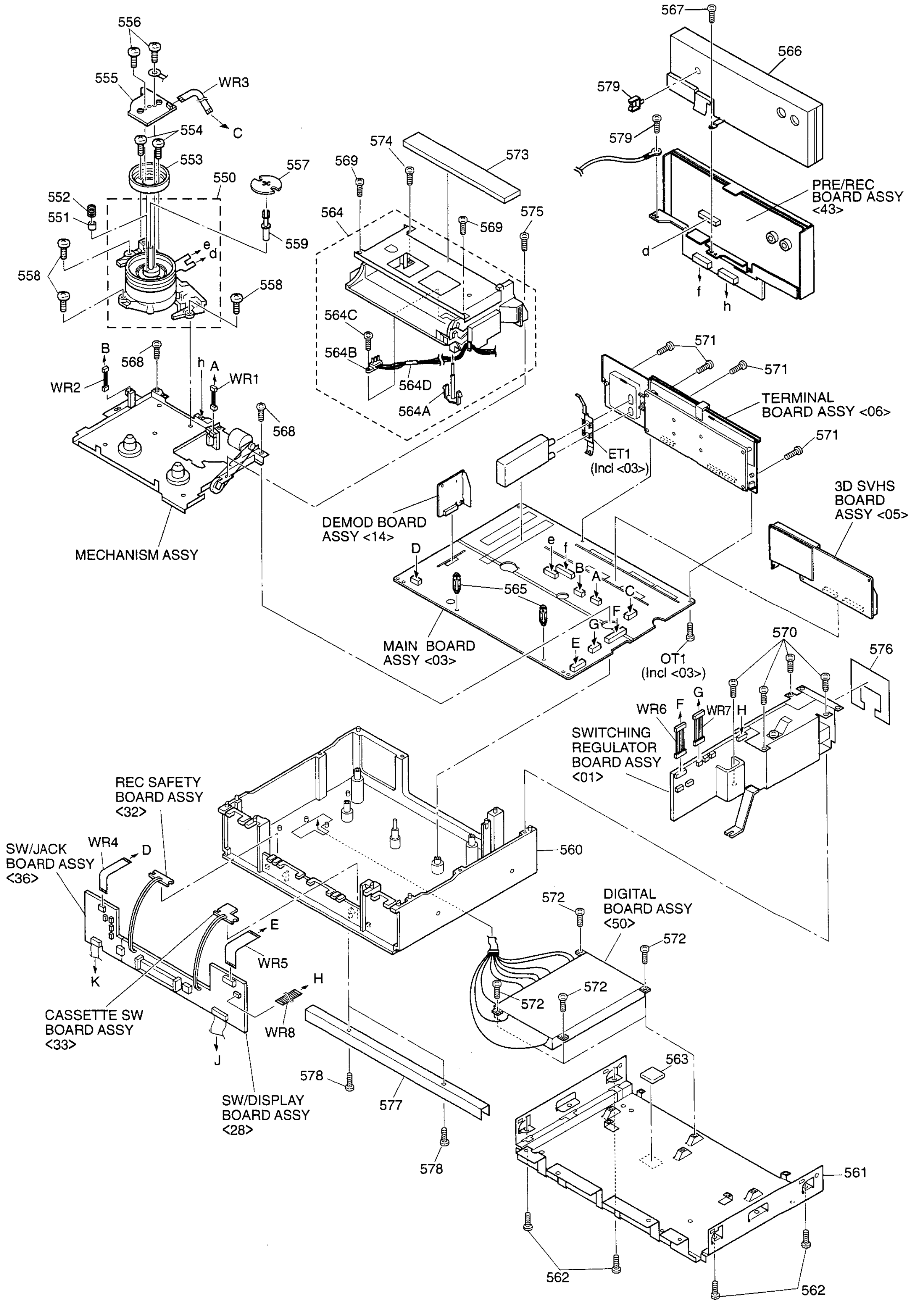
550	996500002058	DRUM SUB ASSY
551	482226511367	CONTACT
552	482249211671	COMPRESSION SPRING
553	482236210293	ROTOR ASSY
555	! 482236210294	STATOR ASSY
557	482252890827	INERTIA PLATE
564	996500002059	CASSETTE HOUSING ASSY
564A	482253510316	CASSETTE SWITCH PIN
564B	996500002060	CASSETTE SWITCH
565	482253571384	SPACER,X2

WIRES

WR1	996500002061	PARA RIBON WIRE,A/C HEAD
WR2	996500002062	PARA RIB S WIRE,FE HEAD
WR3	996500002063	FFC WIRE,DRUM CN3011
WR4	996500002064	FFC WIRE,SW/JACK CN7
WR5	996500002065	FFC WIRE,DISPLAY CN3
WR6	996500002066	SIN CR C-C WIRE,REG
WR7	996500002067	SIN CR C-C WIRE,REG
WR8	996500002068	SIN ID C-C WIRE,DISPLAY

! ... Safety component, use only this type.

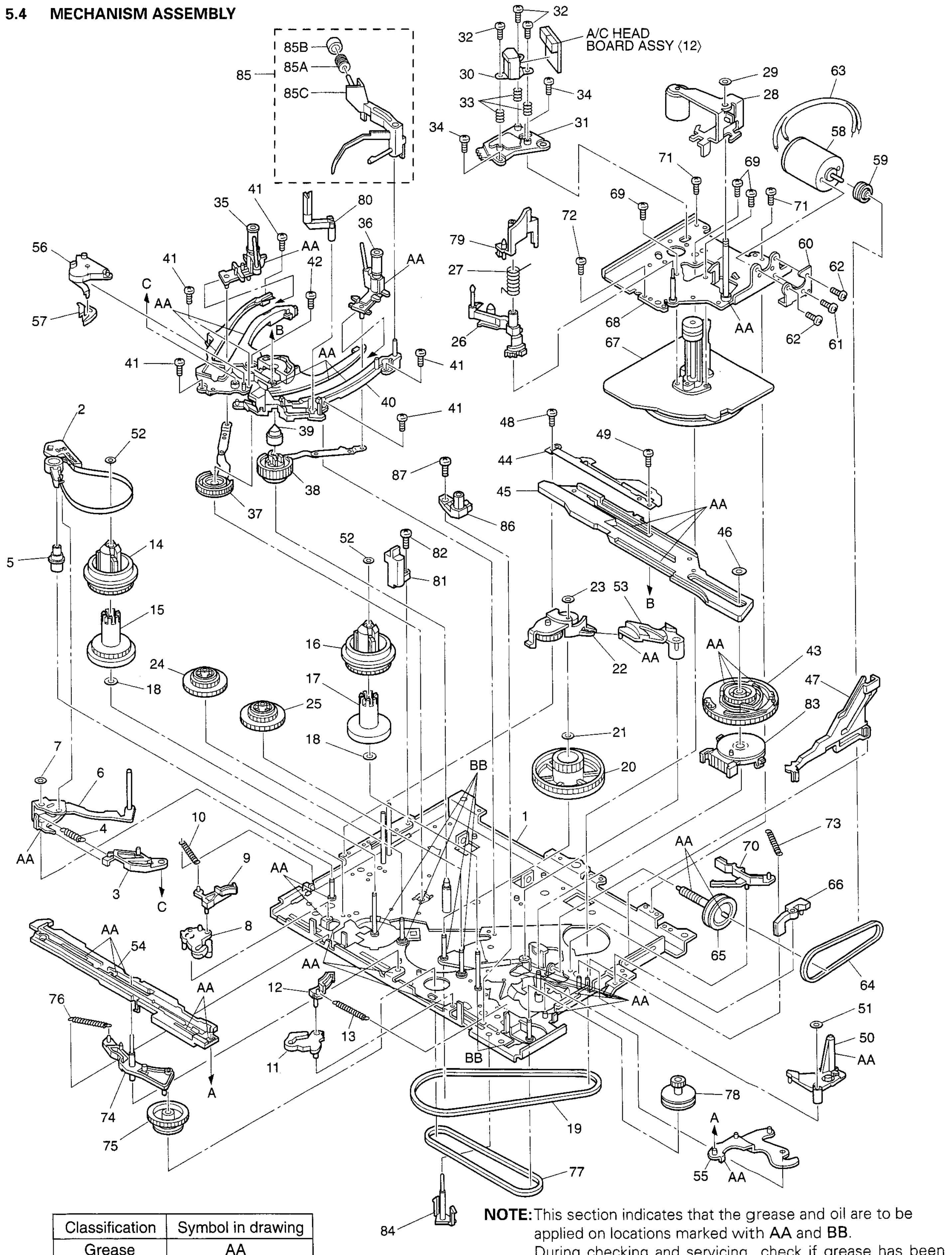
5.3 CHASSIS ASSEMBLY


556
555
WR3
C
554
553
557
552
551
550
559
e
d
558
558
569
574
573
564
569
575
564C
564B
564D
564A
567
566
579
579
PRE/REC
BOARD ASSY
<43>
d
f
h
571
571
TERMINAL
BOARD ASSY <06>
571
ET1
(Incl <03>)
B
568
h
A
WR2
WR1
568
MECHANISM ASSY
DEMOD BOARD
ASSY <14>
D
e
f
B
A
C
565
F
G
E
MAIN BOARD
ASSY <03>
OT1
(Incl <03>)
3D SVHS
BOARD
ASSY <05>
570
576
WR6
F
G
WR7
H
SWITCHING
REGULATOR
BOARD ASSY
<01>
REC SAFETY
BOARD ASSY
<32>
SW/JACK
BOARD ASSY
<36>
WR4
D
560
572
DIGITAL
BOARD ASSY
<50>
572
E
WR5
K
H
572
572
CASSETTE SW
BOARD ASSY
<33>
WR8
J
578
577
SW/DISPLAY
BOARD ASSY
<28>
578
563
561
562
562

4. MECHANISM ASSEMBLY

2	482246611535	TENSION BAND ASSY
3	482240210367	TENSION ARM LEVER
4	482249211184	TENSION SPRING
5	482253510525	ADJUST PIN
6	482240371294	TENSION ARM ASSY
7	482253212326	SLIT WASHER
8	482240310318	MAIN BRAKE ASSY (SUPPLY)
9	482240371295	SUB BRAKE ASSY(SUPPLY)
10	482249233502	TENSION SPRING
11	482240210567	MAIN BRAKE ASSY (TAKE UP)
12	996500002069	SUB BRAKE ASSY(TAKE
13	482249233501	TENSION SPRING
14	482252811122	REEL ASSY(SUPPLY)
15	482252811122	SLIT DISK(SUPPLY)
16	482252811122	REEL DISK ASSY(TAKE UP)
17	482252811125	SLIT DISK(TAKE UP)
18	996500002070	SPACER,X2
19	482235810182	BELT,CAPSTAN MOTOR
20	482252811016	PULLEY ASSY
21	482253571381	SPACER
22	482240210734	IDLER ARM ASSY
23	482253211553	SLIT WASHER
24	996500002071	CLUTCH UNIT(SUPPLY)
25	482252830428	CLUTCH UNIT(TAKE UP)
26	996500002072	GUIDE ARM ASSY
27	482249211185	TORSION SPRING
28	482252811051	PINCH ROLLER ARM ASSY
29	482253211784	SLIT WASHER,P.LEVER
30	482224910444	AC HEAD
31	482246410168	HEAD BASE
35	482240210374	POLE BASE ASSY(SUPPLY)
36	482240371344	POLE BASE ASSY(TAKE UP)
37	482240210376	LOADING ARM ASSY(SUPPLY)
38	482240210625	LOADING ARM ASSY(TAKE UP)
39	482246210925	GUIDE CAP
40	482246311065	GUIDE RAIL
43	482252811127	CONTROL CAM
44	996500002073	CONTROL BRACKET
45	482246611771	CONTROL PLATE
46	482253212105	SLIT WASHER
47	482246611143	PINCH PLATE
50	482240210378	LEVER ASSY
51	482253212105	SLIT WASHER
52	482253212326	SLIT WASHER,X2
53	482240210381	IDLER LEVER
54	482246311178	SLIDE PLATE
55	482240210735	CHANGE LEVER ASSY
56	482240210382	TAKE UP LEVER
57	482240210383	TAKE UP HEAD
58	482236111095	LOADING MOTOR
59	482252881557	MOTOR PULLEY
60	996500002074	MOTOR GUIDE
63	482232163037	WIRE ASSY
64	482235810204	BELT,LOADING MOTOR
65	482252210482	WORM GEAR ASSY
66	482252010826	WORM BEARING
67	482236110918	CAPSTAN MOTOR
68	996500002075	SUB DECK ASSY
70	482246611146	CAPSTAN BRAKE ASSY
73	996500002076	TENSION SPRING
74	996500002077	CHANGE ARM ASSY
75	482252210479	CHANGE GEAR
76	482249233498	TENSION SPRING
77	482235810184	BELT,CHANGE GEAR
78	482252210648	CASSETTE GEAR
79	482246311066	LID GUIDE
80	482238111878	LED PRISM
81	482224940307	FULL ERASE HEAD
83	482269121046	ROTARY ENCODER
84	996500002078	S-SW PIN
85	482240371306	CLEANER ASSY
86	996500002079	S-SW HOLDER

5.4 MECHANISM ASSEMBLY


32
32
A/C HEAD
BOARD ASSY ⟨12⟩
30
34
33
31
34
29
28
63
58
59
71
69
69
71
72
60
62
61
62
68
AA
67
85
85B
85A
85C
80
35
41
36
56
41
AA
42
AA
57
C
AA
B
41
AA
41
40
41
39
38
37
79
27
26
2
52
5
14
15
18
24
25
16
17
18
52
82
81
87
86
48
44
49
45
AA
46
B
23
53
22
AA
AA
43
47
83
21
20
7
6
4
AA
3
C
10
9
8
AA
54
AA
76
74
75
A
12
13
11
AA
BB
BB
1
AA
AA
70
73
66
65
64
51
50
AA
78
19
77
A
55
AA
84

Classification	Symbol in drawing
Grease	AA
Oil	BB

NOTE: This section indicates that the grease and oil are to be applied on locations marked with **AA** and **BB**.
During checking and servicing, check if grease has been applied on the locations marked with **AA** and oil on the locations marked with **BB**.

5. SW REG BOARD ASSEMBLY

PW1	996500002080	SW/REG BOARD ASSY

INTEGRATED CIRCUITS

IC5101	996500002081	STR-F6552
IC5301	996500002082	L5431
IC5302	996500002083	PQ12RF21
IC5303	532220917119	PQ30RV31
IC5304	532220917119	PQ5EV3
IC5305	996500002084	PQ15RW21
IC5306	532220917119	PQ30RV31
IC5307	996500002084	PQ15RW21

TRANSISTORS

Q5301	482213062555	UN5111
Q5302	482213063496	2SD2144S/UV/-T
Q5303	482213061287	UN5211
Q5304	482213060862	2SA1576A/RS/-X
Q5305	482213063596	2SB1256
Q5308	482213061287	UN5211
Q5310	482213060873	2SD1819A/RS/-X
Q5311	482213062555	UN5111

DIODES

D5001	996500002087	RBV-406
D5101	482213082686	AU01
D5102	482213082686	AU01
D5103	482213082768	AU01Z
D5105	482213081377	AK04
D5106	482213032778	1SS133
D5201	482213082768	AU01Z
D5202	482213080703	FML-12S
D5203	996500002092	MA7D49
D5204	996500002092	MA7D49
D5206	482213082768	AU01Z
D5207	482213082768	AU01Z
D5208	482213082427	10ELS2
D5301	482213083751	MTZJ15A
D5302	482213032778	1SS133
D5303	996500000549	MTZJ27C
D5304	482213032778	1SS133
D5305	482213081377	AK04
D5307	482213032778	1SS133
D5308	482213032778	1SS133
D5309	482213032778	1SS133
D5310	482213032778	1SS133
D5311	482213032778	1SS133
D5312	482213032778	1SS133
D5313	482213032778	1SS133
D5314	482213032778	1SS133
D5315	532213031504	MTZJ3.3B
D5316	482213032778	1SS133
D5317	482213032778	1SS133
D5318	482213032778	1SS133
D5319	482213032778	1SS133

RESISTORS

R5101	482205311683	OMF RESISTOR 68kΩ,2W
R5102		MG RESISTOR 680Ω,1/
R5103		RESISTOR 10Ω,1/4W
R5104	482205311683	OMF RESISTOR 68kΩ,2
R5106		MF RESISTOR 0.33Ω,1
R5108		MG RESISTOR 3.3kΩ,1
R5301		MG RESISTOR 3.9Ω,1/
R5302		MG RESISTOR 1kΩ,1/1
R5303		MG RESISTOR 1.2kΩ,1
R5304	! 996500002093	FUSI RESISTOR 4.7Ω,
R5305	! 996500002093	FUSI RESISTOR 4.7Ω,
R5306	! 482211712959	FUSI RESISTOR 100Ω,
R5307		MG RESISTOR 1kΩ,1/1
R5308		MG RESISTOR 16kΩ,1/10W
R5309		MG RESISTOR 15kΩ,1/10W
R5310		MG RESISTOR 220Ω,1/
R5311		MG RESISTOR 4.7kΩ,1
R5312		CMF RESISTOR 12.4kΩ
R5313		CMF RESISTOR 3.01kΩ
R5314		MG RESISTOR 22kΩ,1/
R5316		MG RESISTOR 10kΩ,1/
R5317		MG RESISTOR 22kΩ,1/
R5318		MG RESISTOR 1kΩ,1/1
R5320		RESISTOR 2.2kΩ,1/4W
R5321		MG RESISTOR 1kΩ,1/1
R5322		MG RESISTOR 47kΩ,1/
R5324		MG RESISTOR 560Ω,1/
R5325		MG RESISTOR 10kΩ,1/
R5326		MG RESISTOR 2.7kΩ,1
R5327		MG RESISTOR 10kΩ,1/
R5328		MG RESISTOR 4.7kΩ,1
R5329		MG RESISTOR 820Ω,1/
R5331		RESISTOR 33kΩ,1/4W
R5332		MG RESISTOR 27kΩ,1/
R5333		MG RESISTOR 27kΩ,1/
R5334		MG RESISTOR 4.7kΩ,1
R5335		MG RESISTOR 2.2kΩ,1
R5339		MG RESISTOR 15kΩ,1/
R5341		CMF RESISTOR 10kΩ,1
R5342		CMF RESISTOR 16kΩ,1
R5343		MG RESISTOR 10kΩ,1/
R5344		MG RESISTOR 7.5kΩ,1
R5345		MG RESISTOR 4.7Ω,1/
R5346		MG RESISTOR 4.7Ω,1/
R5347	482211710423	OMF RESISTOR 390Ω,2
R5348	482211710423	OMF RESISTOR 390Ω,2
R5349	482211710423	OMF RESISTOR 390Ω,2
R5350	482211710423	OMF RESISTOR 390Ω,2
R5351		MG RESISTOR 1kΩ,1/10W

CAPACITORS

C5001	! 996500002094	F CAPACITOR 0.068μF
C5002	! 996500000897	F CAPACITOR 0.033μF
C5005	!	CAPACITOR 0.0022μF,
C5006		E CAPACITOR 150μF,40V
C5101		CAPACITOR 0.0047μF,
C5103		E CAPACITOR 39μF,25
C5104		CAPACITOR 220pF,1kV
C5105		F CAPACITOR 470pF,5
C5201		E CAPACITOR 220μF,6
C5202		E CAPACITOR 2700μF,
C5203		E CAPACITOR 3300μF,
C5204		E CAPACITOR 4.7μF,1
C5205		E CAPACITOR 18μF,50
C5206		E CAPACITOR 180μF,2
C5207		E CAPACITOR 3300μF,
C5208		E CAPACITOR 330μF,1
C5209		E CAPACITOR 330μF,1
C5210		E CAPACITOR 100μF,2
C5211		E CAPACITOR 330μF,1
C5301		F CAPACITOR 0.01μF,
C5302		F CAPACITOR 0.047μF
C5303	482212170224	F CAPACITOR 0.01μF,
C5304		CAPACITOR 0.001μF,5
C5305		E CAPACITOR 100μF,1
C5307		E CAPACITOR 100μF,1
C5308		E CAPACITOR 100μF,1
C5309		CAPACITOR 0.001μF,5
C5310		E CAPACITOR 100μF,1
C5311		E CAPACITOR 47μF,10
C5313		E CAPACITOR 100μF,1
C5314		E CAPACITOR 100μF,16V
C5315		NP E CAPACITOR 1μF, 50V

COILS

L5201	482215711287	COIL 33μH
L5202	996500002095	COIL 33μH
L5203	482215711287	COIL 33μH
L5204	996500002095	COIL 33μH

! ... Safety component, use only this type

PHOTO COUPLER

PC5101	! 482213010431	PC123F2

TRANSFORMER

T5001	! 996500002096	SWTRANSFORMER

WIRE

WR2	996500002097	SINTWISTWIRE

CONNECTORS

CN5001	! 482226731822	AC INLET
CN5301	996500002098	CONNECTOR,(1-5)DISPL
CN5303	996500002099	CONNECTOR,(1-5)MAIN
CN5304	996500002100	CONNECTOR,(1-11)MAIN
CN5305	996500002101	CONNECTOR,(1-6)DIGIT
CN5306	996500002102	CONNECTOR,(1-3)DIGIT
CN5307	996500002106	CONNECTOR,(1-4)DIGIT
CP5301	! 532215753342	ICP-N15
CP5302	! 482220961685	ICP-N38
CP5303	! 482220961685	ICP-N38
CP5304	! 482220963611	ICP-N20

FUSE

F5001	! 482207032002	FUSE T2.0A,AC250V

6. MAIN BOARD ASSEMBLY

INTEGRATED CIRCUITS

IC1	996500000345	JCP8017-MSA
IC2	482220916447	MM1113XF
IC3	482220933872	MM1111XF
IC4	996500002107	MM1041XM
IC201	996500000889	LC74775-9750
IC2201	482220917534	AN3651FBP
IC2601	996500001740	BU4052BCF
IC2602	996500000891	BA15218F-XE
IC3001	996500002108	HD6432194A60F
IC3002	482220932732	S-80728AN-DR-X
IC3003	482220915764	X24C08P
IC3004	482220930619	TA7291S
IC3005	996500002109	TC7W53FU
IC3301	996500002110	MN101C12GCA
IC3401	996500002111	BU4053BCF
IC3402	996500002111	BU4053BCF
IC3403	996500002112	AT45D041-RC-X
IC6080	996500000891	BA15218F-XE

TRANSISTORS

Q1	482213061075	2SB1218A/QR/-X
Q6	482213061075	2SB1218A/QR/-X
Q13	482213060873	2SD1819A/QRS/-X
Q14	482213060873	2SD1819A/QRS/-X
Q15	482213061075	2SB1218A/QR/-X
Q16	482213010897	UN511E
Q17	482213061286	UN521E
Q18	482213061286	UN521E
Q34	996500000463	2SC4081/S/-X
Q35	996500000463	2SC4081/S/-X
Q36	996500000463	2SC4081/S/-X
Q37	996500000463	2SC4081/S/-X
Q47	996500000892	2SK433/D/-W
Q48	996500000892	2SK433/D/-W
Q49	482213060668	2SC3936/BC/-X
Q55	482213061286	UN521E
Q152	482213061075	2SB1218A/QR/-X
Q159	482213060873	2SD1819A/QRS/-X
Q207	482213061075	2SB1218A/QR/-X
Q208	482213060873	2SD1819A/QRS/-X
Q2001	482213060669	2SC4081/QRS/-X
Q2002	482213060669	2SC4081/QRS/-X
Q2003	482213061524	DTA144WU
Q2051	482213060669	2SC4081/QRS/-X
Q2052	482213060862	2SA1576A/QR/-X
Q2053	482213060997	DTC144WU
Q2054	482213060862	2SA1576A/QR/-X
Q2055	482213060997	DTC144WU
Q2151	482213060669	2SC4081/QRS/-X
Q2253	482213061906	DTC114EU
Q2601	482213061524	DTA144WU
Q2602	482213060997	DTC144WU
Q2603	482213063496	DTC114TU
Q2604	482213063496	DTC114TU
Q2607	482213063496	DTC114TU
Q2608	482213063496	DTC114TU
Q3001	482213060873	2SD1819A/QRS/-X
Q3002	482213010898	LP40038-001A
Q3003	482213010898	LP40038-001A
Q3004	482213060873	2SD1819A/QRS/-X
Q3005	482213060873	2SD1819A/QRS/-X
Q3008	482213061286	UN521E
Q3050	482213061906	DTC114EU
Q4001	482213061287	UN5211
Q5301	482213063596	2SB1256
Q5302	482213063496	DTC114TU
Q5303	482213061892	2SD2144S/UV/-T
Q5304	996500000893	2SD1450/ST/-T
Q5305	482213061903	DTA114EU
Q5307	482213061906	DTC114EU
Q6030	482213063469	2SB1218A/RS/-X
Q6031	482213061287	UN5211
Q6032	482213061287	UN5211

DIODES

D201	482213083649	1SS355
D202	482213083649	1SS355
D203	482213083649	1SS355
D205	482213083649	1SS355
D206	482213083649	1SS355
D2001	482213032778	1SS133
D2201	482213081748	11ES2
D2601	482213032778	1SS133
D2602	482213032778	1SS133
D3001	482213083429	SIR-381SB3FM
D3002	482213032778	1SS133
D3003	482213083944	RD39ES/B3/-T2
D3004	482213081748	11ES2
D3005	482213081748	11ES2
D3008	482213083649	1SS355
D4001	482213083649	1SS355
D4002	482213083649	1SS355
D5305	482213081748	11ES2
D5306	996500002124	MA8110/H/-X
D6002	482213083157	HZ30-2L-T2

RESISTORS

R1		MG RESISTOR 330Ω,1/10W
R2		MG RESISTOR 560Ω,1/
R3		MG RESISTOR 4.7kΩ,1
R4		MG RESISTOR 8.2kΩ,1
R5		MG RESISTOR 10kΩ,1/
R6		MG RESISTOR 680Ω,1/
R7		MG RESISTOR 4.7kΩ,1
R10		MG RESISTOR 1kΩ,1/1
R11		MG RESISTOR 0Ω,1/10
R13		MG RESISTOR 2.2kΩ,1
R15		MG RESISTOR 0Ω,1/10
R16		MG RESISTOR 0Ω,1/10
R24	996500000508	CMF RESISTOR 6.2kΩ,
R25	996500000509	CMF RESISTOR 1.5kΩ,
R46		MG RESISTOR 10kΩ,1/
R47		MG RESISTOR 5.6kΩ,1
R48		MG RESISTOR 220Ω,1/10W

! ... Safety component, use only this type

R49	MG RESISTOR 220Ω,1/10W
R50	MG RESISTOR 1kΩ,1/1
R52	MG RESISTOR 6.8kΩ,1
R54	MG RESISTOR 0Ω,1/10W
R55	MG RESISTOR 1.2kΩ,1
R56	MG RESISTOR 0Ω,1/10
R57	MG RESISTOR 1kΩ,1/1
R60	MG RESISTOR 56kΩ,1/
R62	MG RESISTOR 0Ω,1/10
R63	CAPACITOR 12pF,50V
R64	CAPACITOR 22pF,50V
R68	MG RESISTOR 470Ω,1/
R69	MG RESISTOR 470Ω,1/
R71	MG RESISTOR 4.7kΩ,1
R73	MG RESISTOR 68kΩ,1/
R75	MG RESISTOR 0Ω,1/10
R94	MG RESISTOR 2.2kΩ,1
R95	MG RESISTOR 0Ω,1/10
R96	MG RESISTOR 0Ω,1/10
R120	MG RESISTOR 1kΩ,1/1
R121	MG RESISTOR 1kΩ,1/1
R137	MG RESISTOR 1kΩ,1/1
R166	MG RESISTOR 1kΩ,1/1
R168	MG RESISTOR 1kΩ,1/1
R169	MG RESISTOR 1kΩ,1/1
R170	MG RESISTOR 10kΩ,1/
R171	MG RESISTOR 2.2kΩ,1
R181	MG RESISTOR 0Ω,1/10
R195	MG RESISTOR 560kΩ,1
R197	MG RESISTOR 10MΩ,1/
R201	MG RESISTOR 0Ω,1/10
R202	MG RESISTOR 4.7kΩ,1
R203	MG RESISTOR 4.7kΩ,1
R204	MG RESISTOR 4.7kΩ,1
R208	MG RESISTOR 0Ω,1/10
R209	MG RESISTOR 5.1kΩ,1
R210	MG RESISTOR 1.8kΩ,1
R211	MG RESISTOR 5.6kΩ,1
R212	MG RESISTOR 330Ω,1/
R213	MG RESISTOR 0Ω,1/10
R216	MG RESISTOR 10kΩ,1/
R218	MG RESISTOR 0Ω,1/10
R224	MG RESISTOR 100Ω,1/
R225	MG RESISTOR 470Ω,1/
R2001	MG RESISTOR 10kΩ,1/
R2002	MG RESISTOR 10kΩ,1/
R2003	MG RESISTOR 6.8kΩ,1
R2004	MG RESISTOR 220kΩ,1
R2005	MG RESISTOR 180Ω,1/
R2006	MG RESISTOR 47kΩ,1/
R2007	MG RESISTOR 18kΩ,1/
R2009	MG RESISTOR 100Ω,1/
R2013	MG RESISTOR 3.3kΩ,1
R2014	MG RESISTOR 15kΩ,1/
R2018	MG RESISTOR 4.7kΩ,1
R2019	MG RESISTOR 4.7kΩ,1
R2020	MG RESISTOR 0Ω,1/10
R2053	MG RESISTOR 5.6kΩ,1
R2054	MG RESISTOR 12kΩ,1/
R2055	MG RESISTOR 3.3Ω,1/
R2056	MG RESISTOR 82Ω,1/1
R2057	MG RESISTOR 47kΩ,1/
R2058	MG RESISTOR 18kΩ,1/
R2059	MG RESISTOR 47kΩ,1/
R2060	MG RESISTOR 18kΩ,1/
R2151	MG RESISTOR 2.2kΩ,1
R2152	MG RESISTOR 4.7kΩ,1
R2201	MG RESISTOR 47kΩ,1/
R2202	MG RESISTOR 47kΩ,1/
R2203	MG RESISTOR 6.8kΩ,1
R2204	MG RESISTOR 6.8kΩ,1
R2206	MG RESISTOR 27kΩ,1/
R2207	MG RESISTOR 47kΩ,1/
R2208	MG RESISTOR 47kΩ,1/
R2209	MG RESISTOR 27kΩ,1/
R2210	MG RESISTOR 47kΩ,1/
R2211	MG RESISTOR 47kΩ,1/
R2212	MG RESISTOR 100kΩ,1
R2213	MG RESISTOR 6.8kΩ,1
R2214	MG RESISTOR 6.8kΩ,1
R2215	MG RESISTOR 100kΩ,1
R2216	MG RESISTOR 6.8kΩ,1/10W
R2217	MG RESISTOR 6.8kΩ,1/10W
R2218	MG RESISTOR 56Ω,1/1
R2219	MG RESISTOR 680Ω,1/
R2222	MG RESISTOR 680Ω,1/
R2225	MG RESISTOR 100Ω,1/
R2226	MG RESISTOR 3.3kΩ,1
R2227	MG RESISTOR 1.2kΩ,1
R2232	MG RESISTOR 47kΩ,1/
R2233	MG RESISTOR 47kΩ,1/
R2234	MG RESISTOR 6.8kΩ,1
R2235	MG RESISTOR 6.8kΩ,1
R2236	MG RESISTOR 4.7kΩ,1
R2237	MG RESISTOR 510Ω,1/
R2239	MG RESISTOR 4.7kΩ,1
R2240	MG RESISTOR 510Ω,1/
R2244	MG RESISTOR 56Ω,1/1
R2251	MG RESISTOR 33kΩ,1/
R2252	MG RESISTOR 220Ω,1/
R2254	MG RESISTOR 4.7kΩ,1
R2601	MG RESISTOR 1kΩ,1/1
R2602	MG RESISTOR 22kΩ,1/
R2603	MG RESISTOR 22kΩ,1/
R2604	MG RESISTOR 1kΩ,1/1
R2605	MG RESISTOR 1kΩ,1/1
R2606	MG RESISTOR 1kΩ,1/1
R2607	MG RESISTOR 100kΩ,1
R2608	MG RESISTOR 100kΩ,1
R2620	MG RESISTOR 10kΩ,1/
R2621	MG RESISTOR 100Ω,1/
R2622	MG RESISTOR 100Ω,1/
R3011	MG RESISTOR 4.7kΩ,1
R3012	MG RESISTOR 4.7kΩ,1
R3013	MG RESISTOR 4.7kΩ,1
R3014	MG RESISTOR 4.7kΩ,1
R3015	MG RESISTOR 4.7kΩ,1
R3016	MG RESISTOR 4.7kΩ,1
R3017	MG RESISTOR 4.7kΩ,1
R3018	MG RESISTOR 6.8kΩ,1
R3019	MG RESISTOR 4.7kΩ,1
R3020	MG RESISTOR 4.7kΩ,1
R3021	MG RESISTOR 4.7kΩ,1
R3022	MG RESISTOR 4.7kΩ,1
R3024	MG RESISTOR 1kΩ,1/1
R3025	MG RESISTOR 4.7kΩ,1
R3026	MG RESISTOR 4.7kΩ,1
R3027	MG RESISTOR 4.7kΩ,1
R3029	MG RESISTOR 4.7kΩ,1
R3030	MG RESISTOR 4.7kΩ,1
R3031	MG RESISTOR 1kΩ,1/1
R3033	MG RESISTOR 1kΩ,1/1
R3034	MG RESISTOR 1kΩ,1/1
R3035	MG RESISTOR 4.7kΩ,1
R3036	MG RESISTOR 10kΩ,1/
R3037	MG RESISTOR 1kΩ,1/1
R3038	MG RESISTOR 1.5kΩ,1
R3039	MG RESISTOR 1kΩ,1/1
R3040	MG RESISTOR 4.7kΩ,1
R3041	MG RESISTOR 4.7kΩ,1
R3042	MG RESISTOR 4.7kΩ,1
R3044	MG RESISTOR 1kΩ,1/1
R3046	MG RESISTOR 470Ω,1/
R3047	MG RESISTOR 470Ω,1/
R3048	MG RESISTOR 470Ω,1/
R3049	MG RESISTOR 100Ω,1/
R3050	MG RESISTOR 100Ω,1/
R3051	MG RESISTOR 470Ω,1/
R3052	MG RESISTOR 470Ω,1/
R3053	MG RESISTOR 470Ω,1/
R3054	MG RESISTOR 4.7kΩ,1
R3055	MG RESISTOR 4.7kΩ,1
R3056	MG RESISTOR 4.7kΩ,1
R3057	MG RESISTOR 4.7kΩ,1
R3058	MG RESISTOR 1kΩ,1/1
R3059	MG RESISTOR 1kΩ,1/1
R3060	MG RESISTOR 470Ω,1/
R3061	MG RESISTOR 470Ω,1/
R3062	MG RESISTOR 10kΩ,1/
R3063	MG RESISTOR 0Ω,1/10
R3066	MG RESISTOR 4.7kΩ,1
R3069	MG RESISTOR 100Ω,1/
R3071	MG RESISTOR 10kΩ,1/
R3072	MG RESISTOR 1kΩ,1/10W

! ... Safety component, use only this type

R3073	MG RESISTOR 1kΩ,1/10W
R3074	MG RESISTOR 470Ω,1/
R3075	MG RESISTOR 100Ω,1/
R3076	MG RESISTOR 100Ω,1/
R3077	MG RESISTOR 1kΩ,1/1
R3078	MG RESISTOR 1kΩ,1/1
R3079	MG RESISTOR 1kΩ,1/1
R3080	MG RESISTOR 1kΩ,1/1
R3081	MG RESISTOR 1kΩ,1/1
R3083	MG RESISTOR 1kΩ,1/1
R3085	MG RESISTOR 1kΩ,1/1
R3086	MG RESISTOR 1kΩ,1/1
R3087	MG RESISTOR 1kΩ,1/1
R3088	MG RESISTOR 220Ω,1/
R3089	MG RESISTOR 1kΩ,1/1
R3090	MG RESISTOR 1kΩ,1/1
R3091	MG RESISTOR 1kΩ,1/1
R3092	MG RESISTOR 1kΩ,1/1
R3093	MG RESISTOR 1kΩ,1/1
R3094	MG RESISTOR 4.7kΩ,1
R3095	MG RESISTOR 1kΩ,1/1
R3096	MG RESISTOR 1kΩ,1/1
R3097	MG RESISTOR 4.7kΩ,1
R3103	MG RESISTOR 1kΩ,1/1
R3104	MG RESISTOR 1kΩ,1/1
R3105	MG RESISTOR 4.7kΩ,1
R3106	MG RESISTOR 1kΩ,1/1
R3201	MG RESISTOR 10kΩ,1/
R3202	MG RESISTOR 4.7kΩ,1
R3203	MG RESISTOR 10kΩ,1/
R3204	MG RESISTOR 3.9kΩ,1
R3205	RESISTOR 75Ω,1/4W
R3206	MG RESISTOR 8.2kΩ,1
R3207	MG RESISTOR 8.2kΩ,1
R3208	MG RESISTOR 220Ω,1/
R3209	MG RESISTOR 27kΩ,1/
R3210	MG RESISTOR 220Ω,1/
R3211	MG RESISTOR 27kΩ,1/
R3212	MG RESISTOR 470kΩ,1
R3213	MG RESISTOR 330kΩ,1
R3214	MG RESISTOR 10kΩ,1/
R3215	MG RESISTOR 10kΩ,1/
R3216	MG RESISTOR 10kΩ,1/
R3217	MG RESISTOR 5.6kΩ,1
R3218	MG RESISTOR 4.7kΩ,1
R3219	MG RESISTOR 4.7kΩ,1
R3220	MG RESISTOR 100kΩ,1
R3222	MG RESISTOR 4.7kΩ,1
R3223	MG RESISTOR 1.5kΩ,1
R3224	MG RESISTOR 1.5kΩ,1
R3225	MG RESISTOR 10kΩ,1/
R3229	MG RESISTOR 1MΩ,1/1
R3230	MG RESISTOR 4.7kΩ,1
R3231	MG RESISTOR 1kΩ,1/1
R3233	MG RESISTOR 10kΩ,1/
R3234	MG RESISTOR 10kΩ,1/
R3235	MG RESISTOR 1.5kΩ,1
R3236	MG RESISTOR 1.5kΩ,1
R3237	MG RESISTOR 10kΩ,1/
R3238	MG RESISTOR 10kΩ,1/
R3240	MG RESISTOR 10kΩ,1/
R3241	MG RESISTOR 10kΩ,1/
R3242	MG RESISTOR 4.7kΩ,1
R3244	MG RESISTOR 10kΩ,1/
R3251	MG RESISTOR 10kΩ,1/
R3252	MG RESISTOR 10kΩ,1/
R3253	MG RESISTOR 10kΩ,1/
R3260	MG RESISTOR 33kΩ,1/
R3262	MG RESISTOR 10kΩ,1/
R3302	MG RESISTOR 1kΩ,1/1
R3303	MG RESISTOR 1kΩ,1/1
R3313	MG RESISTOR 100Ω,1/
R3321	MG RESISTOR 0Ω,1/10
R3322	MG RESISTOR 0Ω,1/10
R3323	MG RESISTOR 0Ω,1/10
R3326	MG RESISTOR 1kΩ,1/1
R3328	MG RESISTOR 22kΩ,1/
R3329	MG RESISTOR 22kΩ,1/
R3330	MG RESISTOR 22kΩ,1/
R3331	MG RESISTOR 1kΩ,1/1
R3332	MG RESISTOR 22kΩ,1/
R3333	MG RESISTOR 1kΩ,1/10W

R3339	MG RESISTOR 1kΩ,1/10W
R3340	MG RESISTOR 1kΩ,1/10W
R3342	MG RESISTOR 0Ω,1/10
R3343	MG RESISTOR 0Ω,1/10
R3345	MG RESISTOR 0Ω,1/10
R3346	MG RESISTOR 0Ω,1/10
R3347	MG RESISTOR 0Ω,1/10
R3348	MG RESISTOR 0Ω,1/10
R3349	MG RESISTOR 0Ω,1/10
R3350	MG RESISTOR 0Ω,1/10
R3351	MG RESISTOR 0Ω,1/10
R3352	MG RESISTOR 0Ω,1/10
R3353	MG RESISTOR 1kΩ,1/1
R3355	MG RESISTOR 1kΩ,1/1
R3356	MG RESISTOR 1kΩ,1/1
R3357	MG RESISTOR 1kΩ,1/1
R3358	MG RESISTOR 1kΩ,1/1
R3359	MG RESISTOR 1kΩ,1/1
R3361	MG RESISTOR 1kΩ,1/1
R3362	MG RESISTOR 100Ω,1/
R3363	MG RESISTOR 1kΩ,1/1
R3364	MG RESISTOR 1kΩ,1/1
R3365	MG RESISTOR 1kΩ,1/1
R3366	MG RESISTOR 0Ω,1/10
R3368	MG RESISTOR 1kΩ,1/1
R3369	MG RESISTOR 1kΩ,1/1
R3370	MG RESISTOR 1kΩ,1/1
R3371	MG RESISTOR 1kΩ,1/1
R3372	MG RESISTOR 1kΩ,1/1
R3373	MG RESISTOR 1kΩ,1/1
R3374	MG RESISTOR 1kΩ,1/1
R3375	MG RESISTOR 1kΩ,1/1
R3376	MG RESISTOR 1kΩ,1/1
R3377	MG RESISTOR 1kΩ,1/1
R3378	MG RESISTOR 1kΩ,1/1
R3379	MG RESISTOR 1kΩ,1/1
R3380	MG RESISTOR 1kΩ,1/1
R3381	MG RESISTOR 330Ω,1/
R3382	MG RESISTOR 330Ω,1/
R3383	MG RESISTOR 330Ω,1/
R3387	MG RESISTOR 0Ω,1/10
R3388	MG RESISTOR 0Ω,1/10
R3389	MG RESISTOR 0Ω,1/10
R3390	MG RESISTOR 0Ω,1/10
R3401	MG RESISTOR 0Ω,1/10
R3402	MG RESISTOR 0Ω,1/10
R3404	MG RESISTOR 0Ω,1/10
R3405	MG RESISTOR 0Ω,1/10
R3412	MG RESISTOR 0Ω,1/10
R3414	MG RESISTOR 0Ω,1/10
R3415	MG RESISTOR 0Ω,1/10
R3432	MG RESISTOR 0Ω,1/10
R3433	MG RESISTOR 0Ω,1/10
R3435	MG RESISTOR 0Ω,1/10
R3439	MG RESISTOR 0Ω,1/10
R3442	MG RESISTOR 0Ω,1/10
R3461	MG RESISTOR 10kΩ,1/
R3462	MG RESISTOR 10kΩ,1/
R3463	MG RESISTOR 10kΩ,1/
R3464	MG RESISTOR 10kΩ,1/
R3465	MG RESISTOR 4.7kΩ,1
R3466	MG RESISTOR 10kΩ,1/
R4001	MG RESISTOR 4.7kΩ,1
R4002	MG RESISTOR 15kΩ,1/
R4003	MG RESISTOR 560Ω,1/
R4004	MG RESISTOR 560Ω,1/
R4005	MG RESISTOR 5.6kΩ,1
R4006	MG RESISTOR 0Ω,1/10
R4007	MG RESISTOR 1kΩ,1/1
R4008	MG RESISTOR 1kΩ,1/1
R4009	MG RESISTOR 1kΩ,1/1
R4010	MG RESISTOR 1kΩ,1/1
R4011	MG RESISTOR 3.9kΩ,1
R4012	MG RESISTOR 2.2kΩ,1
R4013	MG RESISTOR 1kΩ,1/1
R4014	MG RESISTOR 2.2kΩ,1
R4015	MG RESISTOR 22kΩ,1/
R4016	MG RESISTOR 10kΩ,1/
R4017	MG RESISTOR 1kΩ,1/1
R4018	MG RESISTOR 1kΩ,1/1
R4019	MG RESISTOR 10kΩ,1/
R4020	MG RESISTOR 10kΩ,1/10W

R4021		MG RESISTOR 10kΩ,1/10W
R5308		MG RESISTOR 4.7kΩ,1
R5309		MG RESISTOR 2.2kΩ,1
R5315		MG RESISTOR 2.2kΩ,1
R5319		RESISTOR 510Ω,1/4W
R5320		MG RESISTOR 470Ω,1/
R5321		MG RESISTOR 220Ω,1/
R5322		MG RESISTOR 47kΩ,1/
R6020		MG RESISTOR 0Ω,1/10
R6021		MG RESISTOR 0Ω,1/10
R6022		MG RESISTOR 0Ω,1/10
R6023		MG RESISTOR 0Ω,1/10
R6030		MG RESISTOR 1kΩ,1/1
R6031		MG RESISTOR 270Ω,1/
R6032		MG RESISTOR 3.9kΩ,1
R6033		MG RESISTOR 1.8kΩ,1
R6082		MG RESISTOR 10kΩ,1/
R6508		MG RESISTOR 0Ω,1/10
R6510		MG RESISTOR 0Ω,1/10
R6553		MG RESISTOR 0Ω,1/10
R6554		MG RESISTOR 0Ω,1/10
R7501		MG RESISTOR 75Ω,1/1
R7502		MG RESISTOR 75Ω,1/1
R7503		MG RESISTOR 75Ω,1/10W
R7504	996500002125	FERRITE CORE

CAPACITORS

C1	E CAPACITOR 10µF,16V
C2	CAPACITOR 0.1µF,25V
C3	CAPACITOR 0.01µF,50
C5	CAPACITOR 0.01µF,50
C6	CAPACITOR 0.1µF,25V
C7	E CAPACITOR 100µF,1
C9	CAPACITOR 0.01µF,50
C11	CAPACITOR 0.01µF,50
C12	CAPACITOR 0.047µF,2
C13	E CAPACITOR 3.3µF,5
C14	CAPACITOR 0.033µF,2
C16	CAPACITOR 1µF,16V
C19	CAPACITOR 47pF,50V
C20	E CAPACITOR 2.2µF,5
C21	CAPACITOR 0.056µF,5
C23	CAPACITOR 0.022µF,5
C24	CAPACITOR 0.47µF,16
C25	CAPACITOR 0.1µF,25V
C27	CAPACITOR 100pF,50V
C29	E CAPACITOR 4.7µF,2
C30	E CAPACITOR 4.7µF,2
C31	CAPACITOR 0.022µF,5
C32	CAPACITOR 0.01µF,50
C33	CAPACITOR 0.01µF,50
C34	CAPACITOR 0.1µF,25V
C36	CAPACITOR 0.1µF,25V
C37	E CAPACITOR 47µF,16
C41	CAPACITOR 0.1µF,25V
C42	CAPACITOR 0.01µF,50
C43	CAPACITOR 0.01µF,50
C45	CAPACITOR 0.1µF,25V
C46	CAPACITOR 100pF,50V
C47	CAPACITOR 0.1µF,25V
C48	E CAPACITOR 47µF,6.
C49	CAPACITOR 220pF,50V
C54	E CAPACITOR 10µF,16
C55	E CAPACITOR 10µF,16
C56	E CAPACITOR 3.3µF,5
C57	CAPACITOR 0.1µF,25V
C58	CAPACITOR 0.1µF,25V
C59	CAPACITOR 0.047µF,2
C60	CAPACITOR 0.01µF,50
C62	CAPACITOR 0.1µF,25V
C63	CAPACITOR 150pF,50V
C64	E CAPACITOR 100µF,6
C65	CAPACITOR 0.1µF,25V
C66	CAPACITOR 0.01µF,50
C73	CAPACITOR 0.01µF,50
C74	CAPACITOR 0.01µF,50
C75	CAPACITOR 0.01µF,50
C76	CAPACITOR 0.01µF,50
C77	CAPACITOR 27pF,50V
C79	CAPACITOR 12pF,50V
C85	CAPACITOR 0.01µF,50V
C86	E CAPACITOR 47µF,6.
C87	CAPACITOR 0.01µF,50
C88	CAPACITOR 0.01µF,50
C89	CAPACITOR 0.01µF,50
C90	CAPACITOR 0.01µF,50
C92	MG RESISTOR 6.8kΩ,1
C98	CAPACITOR 1µF,16V
C107	CAPACITOR 5pF,50V
C134	CAPACITOR 0.1µF,25V
C136	CAPACITOR 0.1µF,25V
C137	CAPACITOR 0.01µF,50
C139	CAPACITOR 0.01µF,50
C141	CAPACITOR 0.01µF,50
C143	CAPACITOR 0.01µF,50
C164	CAPACITOR 0.01µF,50
C165	CAPACITOR 0.01µF,50
C201	E CAPACITOR 220µF,6
C204	CAPACITOR 0.01µF,50
C206	CAPACITOR 33pF,50V
C207	CAPACITOR 33pF,50V
C209	CAPACITOR 0.47µF,16
C212	CAPACITOR 0.1µF,25V
C213	E CAPACITOR 4.7µF,2
C214	CAPACITOR 0.22µF,16
C215	CAPACITOR 0.22µF,16
C216	E CAPACITOR 220µF,6
C217	CAPACITOR 56pF,50V
C218	CAPACITOR 1µF,10V
C222	CAPACITOR 1µF,10V
C2002	E CAPACITOR 47µF,16
C2003	CAPACITOR 0.012µF,5
C2004	E CAPACITOR 22µF,16
C2005	CAPACITOR 0.001µF,5
C2006	CAPACITOR 330pF,50V
C2007	E CAPACITOR 10µF,16
C2008	CAPACITOR 0.0015µF,
C2009	E CAPACITOR 4.7µF,2
C2010	E CAPACITOR 4.7µF,2
C2011	CAPACITOR 0.033µF,2
C2012	CAPACITOR 0.033µF,2
C2013	CAPACITOR 0.033µF,2
C2015	E CAPACITOR 22µF,16
C2016	E CAPACITOR 4.7µF,2
C2051	CAPACITOR 330pF,50V
C2052	F CAPACITOR 0.082µF
C2053	CAPACITOR 0.0047µF,
C2054	CAPACITOR 0.022µF,5
C2055	E CAPACITOR 10µF,16
C2151	CAPACITOR 100pF,50V
C2152	CAPACITOR 0.01µF,50
C2204	E CAPACITOR 22µF,50
C2205	E CAPACITOR 4.7µF,2
C2206	E CAPACITOR 4.7µF,2
C2207	E CAPACITOR 47µF,16
C2208	E CAPACITOR 10µF,16
C2209	E CAPACITOR 10µF,16
C2210	E CAPACITOR 10µF,16
C2211	E CAPACITOR 10µF,16
C2212	E CAPACITOR 47µF,16
C2213	E CAPACITOR 47µF,6.
C2214	CAPACITOR 0.01µF,50
C2215	E CAPACITOR 10µF,16
C2216	E CAPACITOR 1µF,50V
C2217	E CAPACITOR 1µF,50V
C2218	E CAPACITOR 10µF,50
C2219	E CAPACITOR 10µF,50
C2220	E CAPACITOR 47µF,25
C2224	CAPACITOR 0.01µF,50
C2225	E CAPACITOR 0.22µF,
C2230	CAPACITOR 0.047µF,1
C2231	CAPACITOR 0.015µF,5
C2232	E CAPACITOR 0.22µF,
C2233	CAPACITOR 0.015µF,5
C2234	CAPACITOR 0.047µF,1
C2251	CAPACITOR 0.1µF,25V
C2257	E CAPACITOR 47µF,6.
C2258	CAPACITOR 0.1µF,25V
C2259	CAPACITOR 0.1µF,25V
C2260	CAPACITOR 180pF,50V
C2261	CAPACITOR 0.01µF,50
C2601	E CAPACITOR 10µF,16V
C2602	E CAPACITOR 10µF,50V

! ... Safety component, use only this type

C2611		E CAPACITOR 47µF,25
C2612		E CAPACITOR 47µF,25
C3002		CAPACITOR 0.01µF,50
C3003		E CAPACITOR 10µF,50
C3004		CAPACITOR 0.1µF,25V
C3007		CAPACITOR 100pF,50V
C3008		CAPACITOR 100pF,50V
C3010	996500002126	EDL CAPACITOR 0.002
C3012		E CAPACITOR 100µF,6
C3013		CAPACITOR 0.01µF,50
C3014		E CAPACITOR 22µF,16
C3016		CAPACITOR 0.1µF,25V
C3017		CAPACITOR 47pF,50V
C3018		CAPACITOR 47pF,50V
C3019		CAPACITOR 100pF,50V
C3020		CAPACITOR 100pF,50V
C3021		CAPACITOR 100pF,50V
C3022		CAPACITOR 0.1µF,25V
C3023		E CAPACITOR 10µF,16
C3024		CAPACITOR 22pF,50V
C3025	482212511112	TRIM CAPACITOR,TIMER
C3026		CAPACITOR 0.01µF,50
C3027		E CAPACITOR 10µF,16
C3028		CAPACITOR 100pF,50V
C3029		CAPACITOR 100pF,50V
C3030		E CAPACITOR 22µF,16
C3031		CAPACITOR 0.1µF,25V
C3032		CAPACITOR 0.1µF,25V
C3033		CAPACITOR 0.1µF,25V
C3034		CAPACITOR 47pF,50V
C3035		CAPACITOR 47pF,50V
C3036		CAPACITOR 18pF,50V
C3037		CAPACITOR 12pF,50V
C3038		CAPACITOR 100pF,50V
C3039		CAPACITOR 100pF,50V
C3040		CAPACITOR 1µF,16V
C3042		E CAPACITOR 1000µF,
C3046		CAPACITOR 100pF,50V
C3047		CAPACITOR 100pF,50V
C3048		CAPACITOR 100pF,50V
C3050		CAPACITOR 0.1µF,25V
C3051		CAPACITOR 0.1µF,25V
C3070		CAPACITOR 0.1µF,25V
C3071		CAPACITOR 0.1µF,25V
C3201		CAPACITOR 0.01µF,50
C3312		CAPACITOR 20pF,50V
C3313		CAPACITOR 20pF,50V
C3314		CAPACITOR 0.1µF,25V
C3333		CAPACITOR 0.1µF,25V
C3400		CAPACITOR 0.1µF,25V
C3401		E CAPACITOR 22µF,16
C3416		CAPACITOR 0.1µF,25V
C3446		CAPACITOR 0.1µF,50V
C3456		CAPACITOR 0.1µF,25V
C4001		E CAPACITOR 22µF,16
C4002		CAPACITOR 0.1µF,25V
C4003		CAPACITOR 0.001µF,5
C4004		E CAPACITOR 22µF,16
C4005		CAPACITOR 0.0022µF,
C4006		E CAPACITOR 47µF,16
C4007		CAPACITOR 560pF,50V
C4008		CAPACITOR 1µF,10V
C4009		CAPACITOR 0.056µF,5
C4010		CAPACITOR 0.022µF,2
C4011		CAPACITOR 0.1µF,16V
C4012		CAPACITOR 0.22µF,25
C4013		CAPACITOR 0.056µF,5
C4014		CAPACITOR 100pF,50V
C4015		CAPACITOR 0.001µF,5
C5306		E CAPACITOR 100µF,1
C5307		E CAPACITOR 22µF,16
C5308		E CAPACITOR 220µF,1
C5309		E CAPACITOR 100µF,1
C6006		CAPACITOR 0.01µF,50
C6007		E CAPACITOR 330µF,1
C6008		CAPACITOR 0.01µF,50
C6014		CAPACITOR 0.01µF,50
C6020		CAPACITOR 100pF,50V
C6021		CAPACITOR 100pF,50V
C6022		CAPACITOR 100pF,50V
C6032		CAPACITOR 0.047µF,50V
C6033		MG RESISTOR 0Ω,1/10V
C6037		E CAPACITOR 10µF,50V

COILS

L1	482215711354	COIL 10µH
L3	482215711283	COIL 6.8µH
L4	482215711354	COIL 10µH
L7	482215711354	COIL 10µH
L9	482215711354	COIL 10µH
L12	482215711355	COIL 33µH
L13	996500000899	COIL 12µH
L14	482215711752	COIL 82µH
L16	482215711354	COIL 10µH
L18	996500000900	COIL
L201	482215753302	COIL 1µH
L202	482215220678	COIL 33µH
L203	996500002127	COIL 22µH
L204	482215711354	COIL 10µH
L206	996500000475	COIL 22µH
L2251	482215711354	COIL 10µH
L2252	482215711356	COIL 150µH
L3001	996500002128	COIL 10µH
L3002	482215711355	COIL 33µH
L3003	482215711355	COIL 33µH
L6002	482215711354	COIL 10µH
L6031	482215753302	COIL 1µH

CRYSTALS

X1	996500000273	CRYSTAL RESONATOR
X3001	482224210938	CRYSTAL RESONATOR
X3002	996500000274	CRYSTAL RESONATOR
X3301	996500002129	CRYSTAL RESONATOR

PHOTO COUPLERS

PC3001	482220915614	SG-246
PC3002	482220915614	SG-246

TRANSFORMER & TUNER

T2051	482214881344	OSC TRANSFORMER
TU6001	996500000275	TUNER

CONNECTORS

CN1	482226410398	FPC CONNECTOR,(1-8)U.DRUM
CN606	996500000922	CONNECTOR,(1-9)D.PRE/REC
CN607	996500000923	CONNECTOR,(1-10)D.PRE/REC
CN2001	996500002130	CONNECTOR,(1-7)A/C HEAD
CN2002	482226511415	CONNECTOR,(1-2)FE HEAD
CN2601	996500002131	CONNECTOR,(1-9)FMA_DIGITAL
CN3001	482226511171	FPC CONNECTOR,(1-5)DRUM MDA
CN3002	482226511415	CONNECTOR,(1-2)LOADING MOT.
CN3003	482226511168	CONNECTOR,(1-8)CAPSTAN MOT.
CN3004	482226531291	CONNECTOR,(1-5)ROTARY ENC.
CN3011	996500002132	FPC CONNECTOR,(1-22)
CN3601	996500002133	CONNECTOR,(1-5)REG(MOTOR)
CN3602	996500002131	CONNECTOR,(1-9)DIGITAL
CN3603	996500002134	CONNECTOR,(1-4)D.CASS. SW.
CN3604	996500002135	CONNECTOR,(1-11)REG
CN3605	996500002136	CONNECTOR,(1-7)DIGITAL
CN3606	996500002137	CONNECTOR,(1-4)HOST_OSD
CN7501	996500002138	CONNECTOR,(1-17)TERMINAL
CN7502	996500002138	CONNECTOR,(1-17)TERMINAL
CN7503	996500002138	CONNECTOR,(1-17)TERMINAL
CN7504	996500002139	FPC CONNECTOR,(1-8)TERMINAL
CP3003	! 482220963612	ICP-N25
CP4001	! 532215753342	ICP-N15

! ... Safety component, use only this type

7. 3D SVHS BOARD ASSEMBLY

PRINTED CIRCUIT BOARD

PW1	996500002140	3D SVHS BOARD ASSY

INTEGRATED CIRCUITS

IC1001	482220916458	JCP8008
IC1002	996500000925	VC2076MP-XE
IC1006	996500000926	HA118092FP1
IC1007	996500000927	BA10358F-XE
IC1008	996500002141	MM1115XF
IC1401	996500000928	JCP8010-2
IC1402	996500000929	MN47V77S-XE

TRANSISTORS

Q1004	482213060997	DTC144WU
Q1005	482213060997	DTC144WU
Q1006	482213060862	2SA1576A/QR/-X
Q1007	482213060669	2SC4081/QRS/-X
Q1012	482213060669	2SC4081/QRS/-X
Q1014	482213060669	2SC4081/QRS/-X
Q1015	482213060669	2SC4081/QRS/-X
Q1016	482213060997	DTC144WU
Q1021	482213060862	2SA1576A/QR/-X
Q1022	482213060997	DTC144WU
Q1025	482213060669	2SC4081/QRS/-X
Q1026	482213060862	2SA1576A/QR/-X
Q1401	! 996500000930	2SC1317/RS/-T
Q1402	482213060669	2SC4081/QRS/-X
Q1403	482213060669	2SC4081/QRS/-X
Q1404	996500000463	2SC4081/S/-X
Q1405	482213060669	2SC4081/QRS/-X
Q1406	482213060862	2SA1576A/QR/-X
Q1407	482213060862	2SA1576A/QR/-X
Q1408	482213060862	2SA1576A/QR/-X
Q1409	482213060862	2SA1576A/QR/-X
Q1410	482213060669	2SC4081/QRS/-X
Q1411	482213060862	2SA1576A/QR/-X
Q1412	482213060997	DTC144WU
Q1413	482213060997	DTC144WU
Q1414	482213060997	DTC144WU
Q1416	482213060997	DTC144WU
Q1417	482213060669	2SC4081/QRS/-X
Q1418	482213060669	2SC4081/QRS/-X

DIODES

D1002	482213032778	1SS133
D1003	482213032778	1SS133
D1004	482213032778	1SS133
D1006	482213032778	1SS133
D1401	996500000931	RD4.3ES/B2/-T2
D1402	482213032778	1SS133

RESISTORS

R1002		MG RESISTOR 10kΩ,1/10W
R1003		MG RESISTOR 220Ω,1/
R1004		MG RESISTOR 0Ω,1/10
R1008		MG RESISTOR 10kΩ,1/
R1009		MG RESISTOR 1.2MΩ,1
R1010	996500000519	CMF RESISTOR 3.3kΩ,
R1011	996500000519	CMF RESISTOR 3.3kΩ,
R1012	996500000509	CMF RESISTOR 1.5kΩ,
R1013	996500000520	CMF RESISTOR 470Ω,1
R1014	996500000521	CMF RESISTOR 1kΩ,1/
R1015	996500000521	CMF RESISTOR 1kΩ,1/
R1016		MG RESISTOR 1.2kΩ,1
R1017		MG RESISTOR 1.6kΩ,1
R1018		MG RESISTOR 150Ω,1/
R1019		MG RESISTOR 390Ω,1/
R1020		MG RESISTOR 3.3kΩ,1/10W
R1021		MG RESISTOR 3.3kΩ,1/10W
R1023		MG RESISTOR 2.7kΩ,1
R1025		MG RESISTOR 82kΩ,1/
R1026		MG RESISTOR 1kΩ,1/1
R1027		MG RESISTOR 560Ω,1/
R1028		MG RESISTOR 560Ω,1/
R1029		MG RESISTOR 47kΩ,1/
R1030		MG RESISTOR 47kΩ,1/
R1031		MG RESISTOR 5.6kΩ,1
R1032		MG RESISTOR 180Ω,1/
R1035		MG RESISTOR 0Ω,1/10
R1037		MG RESISTOR 0Ω,1/10
R1038		MG RESISTOR 10kΩ,1/
R1039		MG RESISTOR 390kΩ,1
R1045		MG RESISTOR 2.7kΩ,1
R1046		MG RESISTOR 27kΩ,1/
R1047		MG RESISTOR 10kΩ,1/
R1048		MG RESISTOR 10kΩ,1/
R1049		MG RESISTOR 4.7MΩ,1
R1053		MG RESISTOR 1kΩ,1/1
R1054		MG RESISTOR 220Ω,1/
R1055	996500000932	CMF RESISTOR 56kΩ,1
R1056	996500000933	CMF RESISTOR 220kΩ,
R1058		MG RESISTOR 27kΩ,1/
R1059		MG RESISTOR 0Ω,1/10
R1060		MG RESISTOR 0Ω,1/10
R1063		MG RESISTOR 1.5kΩ,1
R1064		MG RESISTOR 3.3kΩ,1
R1065		MG RESISTOR 1kΩ,1/1
R1066		MG RESISTOR 2.7kΩ,1
R1067		MG RESISTOR 1kΩ,1/1
R1068		MG RESISTOR 360Ω,1/
R1069		MG RESISTOR 470Ω,1/
R1070		MG RESISTOR 390Ω,1/
R1071		MG RESISTOR 180kΩ,1
R1072		MG RESISTOR 6.8kΩ,1
R1075		MG RESISTOR 33kΩ,1/
R1076		MG RESISTOR 33kΩ,1/
R1077		MG RESISTOR 470Ω,1/
R1078		MG RESISTOR 470Ω,1/
R1079		MG RESISTOR 1kΩ,1/1
R1081		MG RESISTOR 0Ω,1/10
R1401		MG RESISTOR 330Ω,1/
R1402		MG RESISTOR 100Ω,1/
R1403		MG RESISTOR 22kΩ,1/
R1404		MG RESISTOR 12kΩ,1/
R1405		MG RESISTOR 1kΩ,1/1
R1406		MG RESISTOR 470Ω,1/
R1407		MG RESISTOR 820Ω,1/
R1408		MG RESISTOR 2.2kΩ,1
R1409		MG RESISTOR 680Ω,1/
R1410		MG RESISTOR 22kΩ,1/
R1411		MG RESISTOR 24kΩ,1/
R1412		MG RESISTOR 100kΩ,1
R1413		MG RESISTOR 470Ω,1/
R1414		MG RESISTOR 330Ω,1/
R1415		MG RESISTOR 1kΩ,1/1
R1416		MG RESISTOR 470Ω,1/
R1417		MG RESISTOR 820Ω,1/
R1418		MG RESISTOR 470Ω,1/
R1419		MG RESISTOR 220Ω,1/
R1420		MG RESISTOR 1.5kΩ,1
R1422		MG RESISTOR 390Ω,1/
R1423		MG RESISTOR 820Ω,1/
R1425		MG RESISTOR 1kΩ,1/1
R1428		MG RESISTOR 0Ω,1/10
R1429		MG RESISTOR 0Ω,1/10
R1430		MG RESISTOR 0Ω,1/10
R1431		MG RESISTOR 0Ω,1/10
R1432		MG RESISTOR 0Ω,1/10
R1433		MG RESISTOR 0Ω,1/10
R1434		MG RESISTOR 47kΩ,1/
R1435		MG RESISTOR 2.4kΩ,1
R1436		MG RESISTOR 15kΩ,1/
R1437		MG RESISTOR 12kΩ,1/
R1438		MG RESISTOR 820Ω,1/
R1439		MG RESISTOR 100Ω,1/
R1440		MG RESISTOR 22kΩ,1/
R1442		MG RESISTOR 22kΩ,1/
R1443		MG RESISTOR 4.7kΩ,1
R1444		MG RESISTOR 220Ω,1/
R1445		MG RESISTOR 1kΩ,1/10W

! ... Safety component, use only this type

R1446		MG RESISTOR 2.2kΩ,1/10W
R1447		MG RESISTOR 1.5kΩ,1
R1448		MG RESISTOR 10kΩ,1/
R1449		MG RESISTOR 47Ω,1/1
R1451		MG RESISTOR 680Ω,1/
R1452		MG RESISTOR 1kΩ,1/1
R1454		MG RESISTOR 1kΩ,1/1
R1455		MG RESISTOR 470Ω,1/
R1456		MG RESISTOR 470Ω,1/
R1457		MG RESISTOR 1kΩ,1/1
R1458		MG RESISTOR 1kΩ,1/1
R1459		MG RESISTOR 1kΩ,1/1
R1460		MG RESISTOR 100kΩ,1
R1461		MG RESISTOR 1.8kΩ,1
R1462		MG RESISTOR 2.7kΩ,1
R1463		MG RESISTOR 6.8kΩ,1
R1465		MG RESISTOR 820Ω,1/
R1467		MG RESISTOR 1kΩ,1/1
R1468		MG RESISTOR 1.6kΩ,1
R1470		MG RESISTOR 10kΩ,1/
R1471		MG RESISTOR 33kΩ,1/
R1472		MG RESISTOR 4.7kΩ,1/10W
VR1002	996500000934	V RESISTOR 100K
VR1401	996500000511	TRIM RESISTOR 10K

CAPACITORS

C1001	E CAPACITOR 47µF,6.3V
C1002	E CAPACITOR 0.47µF,
C1003	E CAPACITOR 10µF,16
C1005	E CAPACITOR 4.7µF,2
C1006	CAPACITOR 0.01µF,50
C1007	CAPACITOR 0.1µF,25V
C1010	CAPACITOR 0.1µF,25V
C1011	CAPACITOR 15pF,50V
C1013	CAPACITOR 0.1µF,25V
C1014	E CAPACITOR 2.2µF,5
C1015	E CAPACITOR 4.7µF,2
C1016	E CAPACITOR 2.2µF,5
C1017	CAPACITOR 0.01µF,50
C1019	CAPACITOR 0.01µF,50
C1020	CAPACITOR 0.01µF,50
C1021	CAPACITOR 0.01µF,50
C1022	E CAPACITOR 1µF,50V
C1023	E CAPACITOR 2.2µF,5
C1024	CAPACITOR 0.01µF,50
C1026	CAPACITOR 0.1µF,25V
C1027	CAPACITOR 0.1µF,25V
C1028	E CAPACITOR 330µF,6
C1029	CAPACITOR 0.1µF,25V
C1030	E CAPACITOR 1µF,50V
C1031	E CAPACITOR 2.2µF,5
C1033	E CAPACITOR 1µF,50V
C1034	NP E CAPACITOR 1µF,
C1035	E CAPACITOR 4.7µF,2
C1036	E CAPACITOR 22µF,6.
C1037	E CAPACITOR 2.2µF,5
C1038	E CAPACITOR 2.2µF,5
C1039	E CAPACITOR 47µF,16
C1040	CAPACITOR 0.01µF,50
C1041	CAPACITOR 300pF,50V
C1042	CAPACITOR 300pF,50V
C1043	CAPACITOR 220pF,50V
C1044	CAPACITOR 82pF,50V
C1045	CAPACITOR 0.01µF,50
C1046	CAPACITOR 270pF,50V
C1047	CAPACITOR 100pF,50V
C1048	CAPACITOR 180pF,50V
C1049	CAPACITOR 300pF,50V
C1050	CAPACITOR 300pF,50V
C1056	CAPACITOR 0.01µF,50
C1057	CAPACITOR 0.01µF,50
C1058	CAPACITOR 0.01µF,50
C1063	CAPACITOR 100pF,50V
C1064	CAPACITOR 0.01µF,50
C1065	E CAPACITOR 220µF,6
C1066	CAPACITOR 0.022µF,2
C1067	CAPACITOR 0.01µF,50
C1068	E CAPACITOR 1µF,50V
C1069	E CAPACITOR 10µF,16V
C1070	CAPACITOR 0.01µF,50V
C1071	CAPACITOR 0.01µF,50
C1072	CAPACITOR 0.01µF,50
C1073	CAPACITOR 15pF,50V
C1074	CAPACITOR 0.01µF,50
C1082	CAPACITOR 0.01µF,50
C1086	CAPACITOR 0.01µF,50
C1087	CAPACITOR 0.01µF,50
C1088	CAPACITOR 0.01µF,50
C1089	CAPACITOR 0.01µF,50
C1095	CAPACITOR 0.1µF,25V
C1096	E CAPACITOR 2.2µF,5
C1097	E CAPACITOR 10µF,16
C1098	E CAPACITOR 10µF,16
C1099	CAPACITOR 0.01µF,50
C1401	E CAPACITOR 33µF,16
C1402	CAPACITOR 0.01µF,50
C1403	CAPACITOR 0.01µF,50
C1404	CAPACITOR 0.01µF,50
C1405	CAPACITOR 22pF,50V
C1406	CAPACITOR 6pF,50V
C1407	CAPACITOR 39pF,50V
C1408	CAPACITOR 0.1µF,25V
C1409	CAPACITOR 0.01µF,50
C1410	E CAPACITOR 330µF,6
C1411	E CAPACITOR 10µF,16
C1412	CAPACITOR 0.1µF,25V
C1413	CAPACITOR 0.1µF,25V
C1414	CAPACITOR 0.01µF,50
C1415	CAPACITOR 220pF,50V
C1416	CAPACITOR 390pF,50V
C1417	CAPACITOR 68pF,50V
C1418	CAPACITOR 8pF,50V
C1419	CAPACITOR 0.1µF,25V
C1420	CAPACITOR 0.1µF,25V
C1421	CAPACITOR 68pF,50V
C1422	CAPACITOR 33pF,50V
C1424	CAPACITOR 0.1µF,25V
C1425	E CAPACITOR 330µF,6
C1426	CAPACITOR 0.01µF,50
C1427	CAPACITOR 0.1µF,25V
C1428	CAPACITOR 0.1µF,25V
C1429	CAPACITOR 0.1µF,25V
C1430	CAPACITOR 0.1µF,25V
C1431	CAPACITOR 0.1µF,25V
C1432	E CAPACITOR 4.7µF,2
C1433	CAPACITOR 0.1µF,25V
C1434	E CAPACITOR 330µF,6
C1435	E CAPACITOR 1µF,50V
C1436	CAPACITOR 0.1µF,25V
C1437	CAPACITOR 0.1µF,25V
C1438	CAPACITOR 0.1µF,25V
C1439	CAPACITOR 0.1µF,25V
C1440	CAPACITOR 0.1µF,25V
C1441	CAPACITOR 0.1µF,25V
C1442	CAPACITOR 0.1µF,25V
C1443	CAPACITOR 0.1µF,25V
C1444	E CAPACITOR 1µF,50V
C1445	CAPACITOR 0.1µF,25V
C1446	CAPACITOR 0.1µF,25V
C1447	CAPACITOR 0.0022µF,
C1448	CAPACITOR 0.1µF,25V
C1449	E CAPACITOR 330µF,6
C1450	CAPACITOR 0.1µF,25V
C1451	CAPACITOR 0.1µF,25V
C1454	CAPACITOR 22pF,50V
C1455	CAPACITOR 39pF,50V
C1457	CAPACITOR 0.1µF,25V
C1458	CAPACITOR 0.01µF,50
C1459	CAPACITOR 47pF,50V
C1460	CAPACITOR 47pF,50V
C1461	CAPACITOR 47pF,50V
C1462	CAPACITOR 47pF,50V
C1463	MG RESISTOR 0Ω,1/10
C1464	CAPACITOR 33pF,50V
C1465	CAPACITOR 47pF,50V
C1468	CAPACITOR 47pF,50V
C1471	CAPACITOR 47pF,50V
C1472	CAPACITOR 47pF,50V
C1473	CAPACITOR 47pF,50V

COILS

L1001	482215711288	COIL 22μH
L1004	482215711746	COIL 68μH
L1006	482215711284	COIL 100μH
L1008	482215711354	COIL 10μH
L1401	482215220678	COIL 33μH
L1402	482215711354	COIL 10μH
L1404	482215762767	COIL 8.2μH
L1405	482215711747	COIL 15μH
L1406	996500000898	COIL 6.8μH
L1407	482215711354	COIL 10μH
L1408	482215711354	COIL 10μH
L1409	482215220678	COIL 33μH
L1410	482215770503	COIL 4.7μH
L1411	996500000904	COIL 1μH
LC1401	482215711732	NOISE FILTER
LC1402	996500000905	NOISE FILTER

CONNECTORS

CN1001	482226511417	HEADER PIN,(1-30)MAIN
CN1002	482226511417	HEADER PIN,(1-30)MAIN
CN1006	996500002101	CONNECTOR,(1-6)DIGITAL

8. TERMINAL BOARD ASSEMBLY

INTEGRATED CIRCUITS

IC3961	482220917015	TC7W241FU
IC3962	482220917015	TC7W241FU
IC7101	996500000908	BH7635S
IC7102	482220916452	TC74HC4052AF-XE
IC7103	482220933872	MM1111XF
IC7104	996500002142	BA7623F

TRANSISTORS

Q7101	482213061287	UN5211
Q7102	482213060873	2SD1819A/QRS/-X
Q7103	482213060873	2SD1819A/QRS/-X
Q7104	482213060873	2SD1819A/QRS/-X
Q7105	482213060873	2SD1819A/QRS/-X
Q7106	482213061075	2SB1218A/QRS/-X
Q7107	482213061075	2SB1218A/QRS/-X
Q7108	482213061075	2SB1218A/QRS/-X

DIODES

D3961	482213083426	RB721Q-40-T2
D3965	482213083426	RB721Q-40-T2

RESISTORS

R3961	MG RESISTOR 4.7kΩ,1/10W
R3962	MG RESISTOR 10kΩ,1/
R7101	MG RESISTOR 100Ω,1/
R7102	MG RESISTOR 100Ω,1/
R7103	MG RESISTOR 100Ω,1/
R7104	MG RESISTOR 100Ω,1/
R7105	MG RESISTOR 100Ω,1/
R7106	MG RESISTOR 75Ω,1/1
R7107	MG RESISTOR 75Ω,1/1
R7108	MG RESISTOR 68Ω,1/1
R7109	MG RESISTOR 3.3kΩ,1
R7110	MG RESISTOR 4.7kΩ,1
R7111	MG RESISTOR 0Ω,1/10
R7112	MG RESISTOR 2.7kΩ,1
R7113	MG RESISTOR 1kΩ,1/1
R7114	MG RESISTOR 560Ω,1/
R7115	MG RESISTOR 6.8kΩ,1
R7116	MG RESISTOR 10kΩ,1/10W
R7118	MG RESISTOR 75Ω,1/10W
R7119	MG RESISTOR 75Ω,1/1
R7120	MG RESISTOR 75Ω,1/1
R7122	MG RESISTOR 33kΩ,1/
R7123	MG RESISTOR 33kΩ,1/
R7124	MG RESISTOR 100Ω,1/
R7125	MG RESISTOR 100Ω,1/
R7126	MG RESISTOR 100Ω,1/
R7127	MG RESISTOR 100Ω,1/
R7128	MG RESISTOR 470Ω,1/
R7129	MG RESISTOR 470Ω,1/
R7130	MG RESISTOR 0Ω,1/10
R7131	MG RESISTOR 100Ω,1/
R7132	MG RESISTOR 220Ω,1/
R7133	MG RESISTOR 100Ω,1/
R7134	MG RESISTOR 47kΩ,1/
R7135	MG RESISTOR 2.2kΩ,1
R7136	MG RESISTOR 100Ω,1/
R7137	MG RESISTOR 100Ω,1/
R7138	MG RESISTOR 75Ω,1/1
R7139	MG RESISTOR 75Ω,1/1
R7140	MG RESISTOR 75Ω,1/1
R7141	MG RESISTOR 75Ω,1/1
R7142	MG RESISTOR 47kΩ,1/
R7143	MG RESISTOR 47kΩ,1/
R7144	MG RESISTOR 4.7kΩ,1
R7145	MG RESISTOR 33kΩ,1/
R7146	MG RESISTOR 100Ω,1/
R7147	MG RESISTOR 22kΩ,1/
R7148	MG RESISTOR 4.7kΩ,1
R7149	MG RESISTOR 33kΩ,1/
R7150	MG RESISTOR 22kΩ,1/
R7151	MG RESISTOR 100Ω,1/
R7152	MG RESISTOR 680Ω,1/
R7153	MG RESISTOR 2.7kΩ,1
R7154	MG RESISTOR 680Ω,1/
R7155	MG RESISTOR 2.7kΩ,1/10W
R7156	RESISTOR 10kΩ,1/4W

CAPACITORS

C3961	CAPACITOR 0.1μF,25V
C7101	CAPACITOR 0.001μF,5
C7103	CAPACITOR 0.001μF,5
C7105	CAPACITOR 680pF,50V
C7107	CAPACITOR 680pF,50V
C7113	CAPACITOR 0.001μF,5
C7114	CAPACITOR 0.001μF,5
C7115	CAPACITOR 680pF,50V
C7116	CAPACITOR 680pF,50V
C7117	E CAPACITOR 47μF,16
C7118	CAPACITOR 0.01μF,50
C7119	E CAPACITOR 100μF,1
C7120	CAPACITOR 0.01μF,50
C7121	CAPACITOR 0.01μF,50
C7126	CAPACITOR 0.001μF,5
C7127	CAPACITOR 0.001μF,5
C7128	CAPACITOR 680pF,50V
C7129	CAPACITOR 680pF,50V
C7130	E CAPACITOR 100μF,1
C7131	E CAPACITOR 47μF,16
C7132	CAPACITOR 0.01μF,50
C7133	E CAPACITOR 100μF,1
C7134	CAPACITOR 0.01μF,50
C7135	E CAPACITOR 470μF,6
C7136	CAPACITOR 0.022μF,5
C7137	CAPACITOR 33pF,50V
C7138	CAPACITOR 0.022μF,5
C7139	CAPACITOR 0.022μF,5
C7140	CAPACITOR 0.022μF,5
C7142	CAPACITOR 33pF,50V
C7144	CAPACITOR 0.01μF,50
C7145	E CAPACITOR 100μF,1
C7146	CAPACITOR 0.01μF,50
C7147	CAPACITOR 0.01μF,50
C7148	E CAPACITOR 100μF,1
C7149	E CAPACITOR 10μF,16
C7150	CAPACITOR 0.01μF,50
C7151	E CAPACITOR 10μF,16
C7152	E CAPACITOR 10μF,16V

! ... Safety component, use only this type

COILS

L7101	482215771249	COIL 4.7µH
L7102	482215771249	COIL 4.7µH
L7103	482215771249	COIL 4.7µH
L7104	482215771249	COIL 4.7µH
L7106	482215771249	COIL 4.7µH
L7107	482215771249	COIL 4.7µH
L7109	482215771249	COIL 4.7µH
L7110	482215771249	COIL 4.7µH
L7112	482215771249	COIL 4.7µH
L7113	482215771249	COIL 4.7µH
L7115	482215771249	COIL 4.7µH
L7116	482215771249	COIL 4.7µH
L7118	996500000910	COIL 1µH
L7120	996500000910	COIL 1µH

SWITCHES & JACKS

S7101	996500000912	SLIDE SWITCH
J3961	996500000996	2.5 JACK,LANC
J7101	482226511443	RGB21PIN SOCKET,AV1
J7102	482226511443	RGB21PIN SOCKET,AV2
J7103	482226511418	S JACK,S IN
J7104	482226511418	S JACK,S OUT
J7105	996500000914	PIN JACK,A.OUT(L)
J7106	996500000913	PIN JACK,A.OUT(R)
J7107	996500000959	PIN JACK,A.IN(L)
J7108	996500000958	PIN JACK,A.IN(R)
J7109	996500002143	MINI JACK,JLIP
J7110	482226732001	MINI JACK,R.PAUSE

CONNECTORS

CN7101	996500002144	CONNECTOR,(1-17)MAIN
CN7102	996500002144	CONNECTOR,(1-17)MAIN
CN7103	996500002144	CONNECTOR,(1-17)MAIN

9. AUDIO CONTROL HEAD BOARD ASSEMBLY

CONNECTOR

CN1	482226511173	CONNECTOR

10. DEMOD BOARD ASSEMBLY <14>

PRINTED CIRCUIT BOARD

PW1	996500002145	DEMOD BOARD ASSY

INTEGRATED CIRCUIT

IC6701	996500000967	TDA9874H/V1-X

TRANSISTOR

Q6701	482213060668	2SC3936/BC/-X

DIODE

D6701	482213010643	1SV214

RESISTORS

R6701		MG RESISTOR 1kΩ,1/10W
R6703		MG RESISTOR 1kΩ,1/1
R6705		MG RESISTOR 10Ω,1/1
R6706		MG RESISTOR 10Ω,1/1
R6707		MG RESISTOR 3.3Ω,1/
R6708		MG RESISTOR 10kΩ,1/
R6709		MG RESISTOR 39kΩ,1/
R6710		MG RESISTOR 39kΩ,1/
R6711		MG RESISTOR 8.2kΩ,1
R6713		MG RESISTOR 10Ω,1/1
R6715		MG RESISTOR 10Ω,1/1
R6716		MG RESISTOR 100Ω,1/
R6717		MG RESISTOR 100Ω,1/
R6719		MG RESISTOR 3.3Ω,1/
R6720		RESISTOR 10Ω,1/4W
R6721		MG RESISTOR 3.9kΩ,1
R6722		MG RESISTOR 4.7kΩ,1
R6723		MG RESISTOR 47Ω,1/1
R6724		MG RESISTOR 470Ω,1/
R6726		MG RESISTOR 2.2kΩ,1/10W

CAPACITORS

C6701		E CAPACITOR 2.2µF,50V
C6702		CAPACITOR 0.0068µF,
C6703		E CAPACITOR 2.2µF,5
C6704		CAPACITOR 0.0068µF,
C6705		CAPACITOR 0.47µF,16
C6706		CAPACITOR 0.47µF,16
C6707		CAPACITOR 0.47µF,16
C6710		E CAPACITOR 0.33µF,
C6711		CAPACITOR 0.033µF,2
C6712		CAPACITOR 18pF,50V
C6713		CAPACITOR 18pF,50V
C6716		CAPACITOR 0.47µF,16
C6718		CAPACITOR 0.22µF,25
C6719		CAPACITOR 0.01µF,50
C6720		E CAPACITOR 1µF,50V
C6722		CAPACITOR 0.47µF,16
C6723		CAPACITOR 100pF,50V
C6724		CAPACITOR 100pF,50V
C6728		CAPACITOR 0.01µF,50
C6729		E CAPACITOR 2.2µF,5
C6730		E CAPACITOR 47µF,16
C6731		CAPACITOR 0.01µF,50
C6732		CAPACITOR 0.01µF,50
C6733		CAPACITOR 0.0022µF,
C6740		CAPACITOR 220pF,50V

COILS

L6701	482215711676	COIL 3.3µH
L6702	996500000910	COIL 1µH
L6703	482215711676	COIL 3.3µH

CRYSTAL

X6701	996500000968	CRYSTAL RESONATOR

CONNECTOR

CN6701	996500000969	HEADER PIN

11. SW/DISPLAY BOARD ASSEMBLY <28>

INTEGRATED CIRCUITS

IC7001	482220916658	M35500BFP
IC7002	482213011051	GP1U280X

TRANSISTORS

Q7001	482213061227	DTA114ES
Q7002	482213061227	DTA114ES
Q7003	482213061227	DTA114ES

DIODES

D7002	482213080793	RD9.1ES/B2/-T2
D7004	482213032778	1SS133
D7005	482213032778	1SS133
D7006	482213032778	1SS133

RESISTORS

R7001		RESISTOR 470Ω,1/4W
R7002		RESISTOR 470Ω,1/4W
R7003		RESISTOR 470Ω,1/4W
R7004		RESISTOR 470Ω,1/4W
R7005		RESISTOR 82kΩ,1/4W
R7007		RESISTOR 82kΩ,1/4W
R7013		RESISTOR 82kΩ,1/4W
R7014		RESISTOR 82kΩ,1/4W
R7015		RESISTOR 10kΩ,1/4W
R7026		RESISTOR 22kΩ,1/4W

CAPACITORS

C7001		CAPACITOR 0.1µF,50V
C7002		E CAPACITOR 10µF,50
C7007		E CAPACITOR 47µF,6.
C7009		CAPACITOR 15pF,50V
C7010		CAPACITOR 0.1µF,25V
C7011		E CAPACITOR 220µF,6
C7019		CAPACITOR 0.022µF,2
C7020		CAPACITOR 0.1µF,25V
C7021		CAPACITOR 0.1µF,25V

F.L. TUBE

DI7001	482213500247	QLF0032-002

CONNECTORS

CN7001	996500002147	FPC CONNECTOR,(1-22)
CN7002	996500002133	CONNECTOR,(1-5)REG
CN7003	482226511193	CONNECTOR,(1-4)JACK
CN7004	996500002148	CONNECTOR,(1-22)OPER

12. REC SAFETY BOARD ASSEMBLY <32>

PRINTED CIRCUIT BOARD

PW4	996500002149	REC SAFETY BOARD ASSY

SWITCH

S7051	482227613432	PUSH SWITCH

WIRE

FW7001	996500002150	PARA RIBON WIRE

13. CASETTE SW BOARD ASSEMBLY <33>

PRINTED CIRCUIT BOARD

PW3	996500002151	CASSETTE SW BOARD ASSY

SWITCHES

S7052	482227613623	PUSH SWITCH
S7053	482227613623	PUSH SWITCH

WIRE

FW7002	996500002152	PARA RIBON WIRE

14. SW/JACK BOARD ASSEMBLY <36>

PRINTED CIRCUIT BOARD

PW2	996500002153	SW/JACK BOARD ASSY

RESISTOR

R7102		RESISTOR 0Ω,1/4W

CAPACITORS

C7102		CAPACITOR 680pF,50V
C7104		CAPACITOR 680pF,50V

COILS

L7101	482215771249	RESISTOR 100Ω,1/4W
L7102	482215771249	RESISTOR 100Ω,1/4W
J7101	482226511127	PIN JACK,VIDEO IN
J7102	482226511128	PIN JACK(SW),AUDIO(L)
J7103	482226531019	PIN JACK(SW),AUDIO(R)
J7104	996500002154	S JACK,S IN

CONNECTORS

CN7101	996500002155	FPC CONNECTOR,(1-8)M
CN7102	996500002156	FFC CONNECTOR,(1-12)
CN7103	482226511194	CONNECTOR,(1-4)

15. PRE/REC BOARD ASSEMBLY <43>

PRINTED CIRCUIT BOARD

PW1	996500002157	PRE/REC BOARD ASSY

INTEGRATED CIRCUITS

IC601	996500002158	JCP0024
IC602	996500002159	TC7W66F
IC2271	482220916284	AN3328S

TRANSISTORS

Q601	482213060667	2SA1532/C/-X
Q602	482213060667	2SA1532/C/-X
Q603	996500002160	2SC4226/4/-X
Q604	482213060873	2SD1819A/QRS/-X
Q605	482213060873	2SD1819A/QRS/-X
Q606	996500002160	2SC4226/4/-X
Q607	482213060873	2SD1819A/QRS/-X
Q608	482213060873	2SD1819A/QRS/-X
Q609	482213060873	2SD1819A/QRS/-X
Q610	996500002161	2SC3930/C/-X
Q611	482213060873	2SD1819A/QRS/-X
Q612	996500002161	2SC3930/C/-X
Q613	996500002162	2SC4670
Q614	482213060873	2SD1819A/QRS/-X
Q615	482213060873	2SD1819A/QRS/-X
Q616	996500002161	2SC3930/C/-X
Q617	996500002162	2SC4670
Q618	482213060873	2SD1819A/QRS/-X
Q619	482213060873	2SD1819A/QRS/-X
Q620	482213061075	2SB1218A/QR/-X
Q621	482213062555	UN5111
Q622	482213061287	UN5211
Q623	482213062555	UN5111
Q624	482213061287	UN5211
Q625	482213062555	UN5111
Q1701	482213060862	2SA1576A/QR/-X
Q1702	482213060862	2SA1576A/QR/-X
Q1703	482213061286	UN521E
Q1704	482213061075	2SB1218A/QR/-X
Q1705	482213061286	UN521E
Q1706	482213061286	UN521E
Q2271	482213010897	UN511E
Q2272	482213061286	UN521E
Q2273	482213061286	UN521E
Q2277	482213060873	2SD1819A/QRS/-X
Q2278	482213060873	2SD1819A/QRS/-X
Q2279	482213062555	UN5111
Q2280	482213060873	2SD1819A/QRS/-X
Q2281	482213062555	UN5111
Q2282	482213062555	UN5111
Q2283	482213061286	UN521E

DIODES

D601	482213032778	1SS133
D602	482213032778	1SS133
D603	482213032778	1SS133

RESISTORS

R601		MG RESISTOR 470Ω,1/10W
R602		MG RESISTOR 470Ω,1/
R603		CMF RESISTOR 10Ω,1/
R604		CMF RESISTOR 10Ω,1/
R605		MG RESISTOR 150kΩ,1
R606		MG RESISTOR 390Ω,1/
R607		MG RESISTOR 1kΩ,1/1
R608		MG RESISTOR 1kΩ,1/1
R609		MG RESISTOR 330Ω,1/
R610		MG RESISTOR 150kΩ,1
R611		MG RESISTOR 1kΩ,1/1
R612		MG RESISTOR 330kΩ,1
R613		MG RESISTOR 0Ω,1/10
R614		MG RESISTOR 150Ω,1/
R615		MG RESISTOR 75Ω,1/1
R616		MG RESISTOR 0Ω,1/10
R617		MG RESISTOR 0Ω,1/10
R618		MG RESISTOR 0Ω,1/10
R619		MG RESISTOR 0Ω,1/10
R620		MG RESISTOR 0Ω,1/10
R621		MG RESISTOR 56kΩ,1/
R622		MG RESISTOR 15kΩ,1/
R624		MG RESISTOR 1kΩ,1/1
R625		MG RESISTOR 1kΩ,1/1
R626		MG RESISTOR 150Ω,1/
R627		MG RESISTOR 56Ω,1/1
R628		MG RESISTOR 47kΩ,1/10W
R629		MG RESISTOR 10kΩ,1/
R630		MG RESISTOR 1.2kΩ,1
R631		MG RESISTOR 1kΩ,1/1
R632		MG RESISTOR 0Ω,1/10
R633		MG RESISTOR 1kΩ,1/1
R634		MG RESISTOR 560Ω,1/
R635		CMF RESISTOR 33Ω,1/
R636		MG RESISTOR 10kΩ,1/
R637		MG RESISTOR 6.8kΩ,1
R638		MG RESISTOR 47Ω,1/1
R639		MG RESISTOR 100Ω,1/
R640		MG RESISTOR 470Ω,1/
R641		MG RESISTOR 1kΩ,1/1
R642		MG RESISTOR 10kΩ,1/
R643		MG RESISTOR 15kΩ,1/
R644		MG RESISTOR 1kΩ,1/1
R645		MG RESISTOR 560Ω,1/
R646		CMF RESISTOR 33Ω,1/
R647		MG RESISTOR 10kΩ,1/
R648		MG RESISTOR 6.8kΩ,1
R649		MG RESISTOR 47Ω,1/1
R650		MG RESISTOR 100Ω,1/
R651		MG RESISTOR 470Ω,1/
R652		MG RESISTOR 1kΩ,1/1
R653		MG RESISTOR 10kΩ,1/
R654		MG RESISTOR 15kΩ,1/
R655		MG RESISTOR 150Ω,1/
R656		MG RESISTOR 10kΩ,1/
R657		MG RESISTOR 10kΩ,1/
R658		MG RESISTOR 75Ω,1/1
R659		MG RESISTOR 470Ω,1/
R660		MG RESISTOR 10kΩ,1/
R1701		MG RESISTOR 220Ω,1/
R1702		MG RESISTOR 680Ω,1/
R1703		MG RESISTOR 560Ω,1/
R1704		MG RESISTOR 39kΩ,1/
R1705		MG RESISTOR 68kΩ,1/
R1706		MG RESISTOR 39kΩ,1/
R1707		MG RESISTOR 4.7kΩ,1
R1708		MG RESISTOR 47kΩ,1/
R2271		MG RESISTOR 100Ω,1/
R2272	!	MG RESISTOR 22Ω,1/1
R2273	!	MG RESISTOR 22Ω,1/1
R2274		MG RESISTOR 1kΩ,1/1
R2275		MG RESISTOR 220Ω,1/
R2277		MG RESISTOR 1kΩ,1/1
R2278		MG RESISTOR 100Ω,1/
R2283		MG RESISTOR 2.2kΩ,1
R2284		MG RESISTOR 2.2kΩ,1
R2285		MG RESISTOR 1kΩ,1/1
R2286		MG RESISTOR 2.2kΩ,1
R2287		MG RESISTOR 1kΩ,1/1
R2288		MG RESISTOR 1kΩ,1/1
R2289		MG RESISTOR 0Ω,1/10
R2290		MG RESISTOR 0Ω,1/10
R2291		MG RESISTOR 0Ω,1/10
R2292		MG RESISTOR 0Ω,1/10
R2293		MG RESISTOR 0Ω,1/10
R2295		MG RESISTOR 0Ω,1/10W
VR2271		V RESISTOR 1K
VR6021		V RESISTOR 100Ω

CAPACITORS

C601	CAPACITOR 0.01μF,50V
C602	CAPACITOR 0.01μF,50
C603	CAPACITOR 1μF,10V
C604	E CAPACITOR 100μF,6
C605	CAPACITOR 0.01μF,50
C606	CAPACITOR 1μF,10V
C607	CAPACITOR 0.1μF,25V
C608	CAPACITOR 1μF,10V
C609	CAPACITOR 0.1μF,25V
C610	CAPACITOR 0.01μF,50
C611	CAPACITOR 0.1μF,25V
C612	CAPACITOR 0.01μF,50
C613	CAPACITOR 0.01μF,50
C614	E CAPACITOR 100μF,6
C615	CAPACITOR 0.01μF,50
C616	E CAPACITOR 100μF,6

! ... Safety component, use only this type

C617	CAPACITOR 0.001µF,5
C619	CAPACITOR 0.01µF,50
C620	CAPACITOR 0.001µF,5
C621	CAPACITOR 470pF,50V
C623	CAPACITOR 0.01µF,50
C624	E CAPACITOR 100µF,1
C625	CAPACITOR 1µF,10V
C626	CAPACITOR 0.1µF,25V
C627	CAPACITOR 1µF,10V
C628	CAPACITOR 1µF,10V
C629	CAPACITOR 1µF,10V
C630	CAPACITOR 0.1µF,25V
C631	CAPACITOR 1µF,10V
C632	CAPACITOR 1µF,10V
C633	CAPACITOR 0.1µF,25V
C634	CAPACITOR 1µF,10V
C636	E CAPACITOR 100µF,6
C640	CAPACITOR 0.01µF,50
C641	CAPACITOR 0.01µF,50
C642	CAPACITOR 0.01µF,50
C1701	CAPACITOR 0.022µF,5
C1702	CAPACITOR 47pF,50V
C1703	CAPACITOR 47pF,50V
C1704	CAPACITOR 100pF,50V
C1705	CAPACITOR 0.001µF,5
C1706	CAPACITOR 15pF,50V
C1707	CAPACITOR 0.01µF,50
C1708	E CAPACITOR 10µF,16
C1709	CAPACITOR 0.1µF,25V
C2271	CAPACITOR 0.01µF,50
C2272	CAPACITOR 0.01µF,50
C2273	CAPACITOR 0.01µF,50
C2274	E CAPACITOR 47µF,16
C2275	CAPACITOR 0.1µF,25V
C2276	CAPACITOR 100pF,50V
C2277	CAPACITOR 0.01µF,50
C2278	CAPACITOR 0.01µF,50
C2279	CAPACITOR 0.022µF,5
C2280	MG RESISTOR 0Ω,1/10
C2282	CAPACITOR 120pF,50V
C2285	CAPACITOR 0.01µF,50
C2286	CAPACITOR 0.01µF,50
C2287	CAPACITOR 0.01µF,50

COILS

L601	482215711354	COIL 10µH
L602	482215711354	COIL 10µH
L603	482215711354	COIL 10µH
L604	482215711284	COIL 100µH
L605	482215711284	COIL 100µH
L1701	996500002163	COIL 15µH
L1702	482215711284	COIL 100µH
L2271	482215711354	COIL 10µH
L2272	996500002164	COIL 1.8µH

CONNECTORS

CN601	996500002165	PIN JACK,REC_DATA
CN602	996500002165	PIN JACK,PB_DATA
CN603	996500000915	CONNECTOR,(1-9)MAIN
CN604	996500000916	CONNECTOR,(1-10)MAIN
CN605	996500002166	FPC CONNECTOR,(1-7)U

16. DIGITAL BOARD ASSEMBLY <50>

PRINTED CIRCUIT BOARD

PW1	996500002167	DIGITAL BOARD ASSY

INTEGRATED CIRCUITS

IC8001	996500002172	JCP8005
IC8002	996500002173	GLT441L16-40TC
IC8101	996500002174	JCP8009
IC8102	996500002175	TLC2932
IC8110	482220990685	TC7SH04FU
IC8111	482220990687	TC7SH08FU
IC8401	996500002176	DVXPLOREPB308B0
IC8402	996500002177	KM416S1120DT-G8
IC8403	996500002177	KM416S1120DT-G8
IC8404	996500002177	KM416S1120DT-G8
IC8405	996500002177	KM416S1120DT-G8
IC8406	482220990684	TC7SHU04FU
IC8407	482220990684	TC7SHU04FU
IC8601	996500002178	JCP8019
IC8602	996500002179	MS81V04160-25TB
IC8801	996500002180	CXD3205R
IC8802	482220990685	TC7SH04FU
IC9001	996500002181	MN1030F04KHFFN
IC9002	482220917282	S-80727AN-DQ-X
IC9003	996500002182	AT25080N-10SC-X
IC9004	996500002183	SN74LV573APW
IC9005	996500002183	SN74LV573APW
IC9006	996500002183	SN74LV573APW
IC9007	996500002185	MBV800TA10PT
IC9008	996500002187	UPD43256BGWA85
IC9009	996500002190	SN74HCT08APW
IC9010	996500002190	SN74HCT08APW
IC9011	996500002190	SN74HCT08APW
IC9012	996500002192	SN74LV08APW
IC9013	996500002192	SN74LV08APW
IC9014	532220914982	TC7W32FU
IC9015	996500002193	TC74HC4066AFT
IC9016	482220990272	TC7S14FU
IC9017	482220990685	TC7SH04FU
IC9301	996500002194	JCP8023
IC9302	996500002177	KM416S1120DT-G8
IC9303	996500000927	BA10358F-XE
IC9304	996500002195	NAX0171-001X
IC9305	996500002199	SN74LVCU04APW
IC9307	996500002199	SN74LVCU04APW
IC9601	996500002200	JCP8025
IC9602	996500000927	BA10358F-XE
IC9603	996500002201	TMS320C31PQL60
IC9801	996500002202	AK4518-VF-X
IC9802	996500000891	BA15218F-XE
IC9803	996500000891	BA15218F-XE

TRANSISTORS

Q8101	996500002203	UMT2N
Q8102	996500002203	UMT2N
Q8103	996500002204	UMW2N
Q8104	996500002161	2SC3930/C/-X
Q8105	482213060667	2SA1532/C/-X
Q8106	482213060873	2SD1819A/QRS/-X
Q8107	482213060873	2SD1819A/QRS/-X
Q8108	482213060873	2SD1819A/QRS/-X
Q8109	996500002161	2SC3930/C/-X
Q8110	996500002161	2SC3930/C/-X
Q8111	482213060667	2SA1532/C/-X
Q8112	996500002162	2SC4670
Q8115	482213060873	2SD1819A/QRS/-X
Q8120	482213060873	2SD1819A/QRS/-X
Q8121	482213060873	2SD1819A/QRS/-X
Q8601	482213060873	2SD1819A/QRS/-X
Q8602	482213061075	2SB1218A/QR/-X
Q8603	482213060873	2SD1819A/QRS/-X
Q8604	482213061075	2SB1218A/QR/-X
Q8605	482213061075	2SB1218A/QR/-X
Q8606	482213060873	2SD1819A/RS/-X

Q8607	482213060873	2SD1819A/QRS/-X
Q8608	482213060873	2SD1819A/QRS/-X
Q8609	482213060873	2SD1819A/QRS/-X
Q8610	482213060873	2SD1819A/QRS/-X
Q8611	482213060873	2SD1819A/QRS/-X
Q8612	482213061075	2SB1218A/QR/-X
Q8613	482213060873	2SD1819A/QRS/-X
Q8614	482213061075	2SB1218A/QR/-X
Q8615	482213060873	2SD1819A/QRS/-X
Q8616	482213061075	2SB1218A/QR/-X
Q8627	482213061075	2SB1218A/QR/-X
Q8628	482213060873	2SD1819A/QRS/-X
Q8629	482213061075	2SB1218A/QR/-X
Q8630	482213060873	2SD1819A/QRS/-X
Q8631	482213061075	2SB1218A/QR/-X
Q8632	482213060856	DTC144EU
Q8633	482213060873	2SD1819A/QRS/-X
Q8634	482213060873	2SD1819A/QRS/-X
Q8635	482213060873	2SD1819A/QRS/-X
Q8636	482213060873	2SD1819A/QRS/-X
Q8637	482213060873	2SD1819A/QRS/-X
Q9001	482213062662	DTC144EE
Q9002	482213062662	DTC144EE
Q9617	482213010269	2SB1302/ST/-X
Q9618	482213062662	DTC144EE
Q9801	482213061524	DTA144WU
Q9802	482213061524	DTA144WU
Q9803	482213060669	2SC4081/QRS/-X
Q9804	482213060669	2SC4081/QRS/-X

DIODES

D8001	996500002205	1SS357
D8601	482213083649	1SS355
D9001	482213080375	DAN202U
D9002	482213083649	1SS355
D9003	482213083649	1SS355
D9004	482213083649	1SS355
D9301	996500002206	MA304
D9601	996500002207	MA2ZV05
D9602	996500002207	MA2ZV05
D9604	996500002207	MA2ZV05
D9605	996500002207	MA2ZV05

RESISTORS

R8001		MG RESISTOR 1MΩ,1/10W
R8002		MG RESISTOR 47Ω,1/1
R8003		MG RESISTOR 0Ω,1/16
R8004		MG RESISTOR 0Ω,1/16
R8005		MG RESISTOR 100Ω,1/
R8006		MG RESISTOR 0Ω,1/16
R8007		MG RESISTOR 0Ω,1/16
R8008		MG RESISTOR 10kΩ,1/
R8013		MG RESISTOR 2.2kΩ,1
R8101		MG RESISTOR 22Ω,1/1
R8102		MG RESISTOR 150Ω,1/
R8103		MG RESISTOR 22Ω,1/1
R8104		MG RESISTOR 2.2kΩ,1
R8105		MG RESISTOR 1kΩ,1/1
R8112		MG RESISTOR 220Ω,1/
R8113		MG RESISTOR 390Ω,1/
R8122		MG RESISTOR 10kΩ,1/
R8123		MG RESISTOR 10kΩ,1/
R8125		MG RESISTOR 0Ω,1/16
R8126		MG RESISTOR 0Ω,1/16
R8127		MG RESISTOR 2.2kΩ,1
R8128		MG RESISTOR 1.5kΩ,1
R8129		MG RESISTOR 1.5kΩ,1
R8130		MG RESISTOR 470Ω,1/
R8131		MG RESISTOR 470Ω,1/
R8132		MG RESISTOR 100Ω,1/
R8134		MG RESISTOR 100Ω,1/
R8135		MG RESISTOR 10kΩ,1/
R8136		MG RESISTOR 0Ω,1/16
R8137		MG RESISTOR 2.2kΩ,1
R8141		MG RESISTOR 2.2kΩ,1
R8146		MG RESISTOR 1kΩ,1/1
R8147		MG RESISTOR 3.9kΩ,1
R8151		MG RESISTOR 75Ω,1/10W
R8152		MG RESISTOR 33kΩ,1/10W
R8153		MG RESISTOR 12kΩ,1/
R8154		MG RESISTOR 1kΩ,1/1
R8155		MG RESISTOR 560Ω,1/
R8156		MG RESISTOR 100Ω,1/
R8157		MG RESISTOR 100Ω,1/
R8158		MG RESISTOR 2.7kΩ,1
R8159		MG RESISTOR 680Ω,1/
R8160		MG RESISTOR 330Ω,1/
R8161		MG RESISTOR 330Ω,1/
R8162		MG RESISTOR 15kΩ,1/
R8163		MG RESISTOR 7.5kΩ,1
R8165		MG RESISTOR 390Ω,1/
R8166		MG RESISTOR 470Ω,1/
R8167		MG RESISTOR 15kΩ,1/
R8171		MG RESISTOR 1.5kΩ,1
R8172		MG RESISTOR 4.7kΩ,1
R8173		MG RESISTOR 1.8kΩ,1
R8174		MG RESISTOR 10kΩ,1/
R8175		MG RESISTOR 470Ω,1/
R8176		MG RESISTOR 680Ω,1/
R8177		MG RESISTOR 1kΩ,1/1
R8178		MG RESISTOR 470Ω,1/
R8179		MG RESISTOR 1kΩ,1/1
R8180		MG RESISTOR 680Ω,1/
R8181		MG RESISTOR 1kΩ,1/1
R8183		MG RESISTOR 100Ω,1/
R8184		MG RESISTOR 75Ω,1/1
R8185		MG RESISTOR 2.7kΩ,1
R8186		MG RESISTOR 0Ω,1/16
R8231	482211712198	CMF RESISTOR 2kΩ,1/
R8232	482211712198	CMF RESISTOR 2kΩ,1/
R8233	482211712198	CMF RESISTOR 2kΩ,1/
R8234	482211712198	CMF RESISTOR 2kΩ,1/
R8235	482211712198	CMF RESISTOR 2kΩ,1/
R8236	482211712195	CMF RESISTOR 1kΩ,1/
R8237	482211712195	CMF RESISTOR 1kΩ,1/
R8238	482211712195	CMF RESISTOR 1kΩ,1/
R8239	482211712195	CMF RESISTOR 1kΩ,1/
R8249		MG RESISTOR 47kΩ,1/
R8250		MG RESISTOR 10kΩ,1/
R8251		MG RESISTOR 10kΩ,1/
R8252		MG RESISTOR 0Ω,1/16
R8253		MG RESISTOR 0Ω,1/16
R8254		MG RESISTOR 0Ω,1/16
R8255		MG RESISTOR 0Ω,1/16
R8256		MG RESISTOR 0Ω,1/16
R8257		MG RESISTOR 0Ω,1/16
R8258		MG RESISTOR 10kΩ,1/
R8260		MG RESISTOR 4.7kΩ,1
R8261		MG RESISTOR 4.7kΩ,1
R8401		MG RESISTOR 75Ω,1/1
R8402		MG RESISTOR 75Ω,1/1
R8403		MG RESISTOR 75Ω,1/1
R8404		MG RESISTOR 10kΩ,1/
R8405		MG RESISTOR 10kΩ,1/
R8406		MG RESISTOR 0Ω,1/16
R8407		MG RESISTOR 100Ω,1/
R8408		MG RESISTOR 1kΩ,1/1
R8409		MG RESISTOR 75Ω,1/1
R8410		MG RESISTOR 1kΩ,1/1
R8411		MG RESISTOR 10kΩ,1/
R8412		MG RESISTOR 75Ω,1/1
R8413		MG RESISTOR 75Ω,1/1
R8414		MG RESISTOR 75Ω,1/1
R8415		MG RESISTOR 75Ω,1/1
R8416		MG RESISTOR 75Ω,1/1
R8417		MG RESISTOR 75Ω,1/1
R8418		MG RESISTOR 75Ω,1/1
R8419		MG RESISTOR 75Ω,1/1
R8420		MG RESISTOR 75Ω,1/1
R8421		MG RESISTOR 75Ω,1/1
R8422		MG RESISTOR 75Ω,1/1
R8423		MG RESISTOR 75Ω,1/1
R8424		MG RESISTOR 75Ω,1/1
R8425		MG RESISTOR 75Ω,1/1
R8426		MG RESISTOR 75Ω,1/1
R8427		MG RESISTOR 75Ω,1/1
R8428		MG RESISTOR 75Ω,1/1
R8429		MG RESISTOR 75Ω,1/1
R8433		MG RESISTOR 1MΩ,1/1
R8434		MG RESISTOR 47Ω,1/10W

R8436		MG RESISTOR 0Ω,1/16W
R8601		MG RESISTOR 33kΩ,1/
R8602		MG RESISTOR 27kΩ,1/
R8603		MG RESISTOR 820Ω,1/
R8606		MG RESISTOR 820Ω,1/
R8607		MG RESISTOR 390Ω,1/
R8608		MG RESISTOR 1kΩ,1/1
R8609		MG RESISTOR 820Ω,1/
R8610		MG RESISTOR 18kΩ,1/
R8611		MG RESISTOR 2.2kΩ,1
R8612		MG RESISTOR 470Ω,1/
R8613		MG RESISTOR 18kΩ,1/
R8614		MG RESISTOR 2.2kΩ,1
R8615		MG RESISTOR 470Ω,1/
R8616		MG RESISTOR 0Ω,1/16
R8617		MG RESISTOR 22kΩ,1/
R8618		MG RESISTOR 27kΩ,1/
R8619		MG RESISTOR 1kΩ,1/1
R8620		MG RESISTOR 18kΩ,1/
R8621		MG RESISTOR 820Ω,1/
R8622		MG RESISTOR 2.2kΩ,1
R8623		MG RESISTOR 1.5kΩ,1
R8624		MG RESISTOR 18kΩ,1/
R8625		MG RESISTOR 4.7kΩ,1
R8626		MG RESISTOR 1kΩ,1/1
R8627		MG RESISTOR 330Ω,1/
R8628		MG RESISTOR 330Ω,1/
R8629		MG RESISTOR 820Ω,1/
R8630		MG RESISTOR 2.2kΩ,1
R8631		MG RESISTOR 820Ω,1/
R8632		MG RESISTOR 18kΩ,1/
R8633		MG RESISTOR 1kΩ,1/1
R8634		MG RESISTOR 390Ω,1/
R8635		MG RESISTOR 560Ω,1/
R8637		MG RESISTOR 820Ω,1/
R8638		MG RESISTOR 820Ω,1/
R8639		MG RESISTOR 22kΩ,1/
R8640		MG RESISTOR 27kΩ,1/
R8641		MG RESISTOR 1kΩ,1/1
R8642		CMF RESISTOR 75Ω,1/
R8656		CMF RESISTOR 82Ω,1/
R8670		CMF RESISTOR 82Ω,1/
R8671		MG RESISTOR 820Ω,1/
R8672		MG RESISTOR 2.2kΩ,1
R8673		MG RESISTOR 820Ω,1/
R8674		MG RESISTOR 18kΩ,1/
R8675		MG RESISTOR 1kΩ,1/1
R8676		MG RESISTOR 390Ω,1/
R8677		MG RESISTOR 560Ω,1/
R8679		MG RESISTOR 820Ω,1/
R8680		MG RESISTOR 820Ω,1/
R8681		MG RESISTOR 22kΩ,1/
R8682		MG RESISTOR 27kΩ,1/
R8683		MG RESISTOR 1kΩ,1/1
R8684	482205130151	CMF RESISTOR 150Ω,1
R8685		CMF RESISTOR 680Ω,1
R8686		CMF RESISTOR 270Ω,1
R8687		MG RESISTOR 0Ω,1/16
R8688		MG RESISTOR 0Ω,1/16
R8689		MG RESISTOR 100Ω,1/
R8690		MG RESISTOR 100Ω,1/
R8691	482211712217	CMF RESISTOR 1.8kΩ,
R8692	482211712189	CMF RESISTOR 2.4kΩ,
R8693	482211712199	CMF RESISTOR 1.5kΩ,
R8694		MG RESISTOR 1kΩ,1/1
R8695		MG RESISTOR 1.2kΩ,1
R8698		MG RESISTOR 0Ω,1/16
R8702		MG RESISTOR 0Ω,1/16
R8703		MG RESISTOR 18Ω,1/1
R8705		MG RESISTOR 10kΩ,1/
R8707		MG RESISTOR 1kΩ,1/1
R8710		MG RESISTOR 100Ω,1/
R8711		MG RESISTOR 100Ω,1/
R8712	482211712199	CMF RESISTOR 1.5kΩ,
R8713	482211712189	CMF RESISTOR 2.4kΩ,
R8714	482211712217	CMF RESISTOR 1.8kΩ,
R8719		MG RESISTOR 1kΩ,1/1
R8721		MG RESISTOR 220Ω,1/
R8801		MG RESISTOR 10kΩ,1/
R8802		MG RESISTOR 10kΩ,1/
R8804		MG RESISTOR 47kΩ,1/
R8806		MG RESISTOR 0Ω,1/16W
R8821		MG RESISTOR 10kΩ,1/10W
R8822		MG RESISTOR 10kΩ,1/
R8823		MG RESISTOR 10kΩ,1/
R8824		MG RESISTOR 10kΩ,1/
R8825		MG RESISTOR 10kΩ,1/
R8826		MG RESISTOR 10kΩ,1/
R8827		MG RESISTOR 10kΩ,1/
R8828		MG RESISTOR 10kΩ,1/
R8829		MG RESISTOR 10kΩ,1/
R8831		MG RESISTOR 10kΩ,1/
R8832		MG RESISTOR 0Ω,1/16
R8833	482211712207	CMF RESISTOR 6.8kΩ,
R8835		MG RESISTOR 100Ω,1/
R8836		MG RESISTOR 4.7kΩ,1
R8837		MG RESISTOR 100Ω,1/
R8838		MG RESISTOR 4.7kΩ,1
R8839		MG RESISTOR 10kΩ,1/
R8840		MG RESISTOR 10kΩ,1/
R8841		MG RESISTOR 56Ω,1/1
R8842		MG RESISTOR 56Ω,1/1
R8843		MG RESISTOR 5.1kΩ,1
R8844		MG RESISTOR 56Ω,1/1
R8845		MG RESISTOR 56Ω,1/1
R8846		MG RESISTOR 56Ω,1/1
R8847		MG RESISTOR 56Ω,1/1
R8848		MG RESISTOR 5.1kΩ,1
R8849		MG RESISTOR 56Ω,1/1
R8850		MG RESISTOR 56Ω,1/1
R8852		MG RESISTOR 0Ω,1/16
R8853		MG RESISTOR 56Ω,1/1
R8854		MG RESISTOR 56Ω,1/1
R8855		MG RESISTOR 56Ω,1/1
R8856		MG RESISTOR 5.1kΩ,1
R8857		MG RESISTOR 56Ω,1/1
R8858		MG RESISTOR 10kΩ,1/
R9002		MG RESISTOR 10kΩ,1/
R9004		MG RESISTOR 10kΩ,1/
R9005		MG RESISTOR 10kΩ,1/
R9006		MG RESISTOR 10kΩ,1/
R9007		MG RESISTOR 1kΩ,1/1
R9008		MG RESISTOR 10kΩ,1/
R9012		MG RESISTOR 10kΩ,1/
R9013		MG RESISTOR 10kΩ,1/
R9014		MG RESISTOR 330Ω,1/
R9016		MG RESISTOR 10kΩ,1/
R9020		MG RESISTOR 0Ω,1/16
R9021		MG RESISTOR 10kΩ,1/
R9023		MG RESISTOR 0Ω,1/16
R9024		MG RESISTOR 0Ω,1/16
R9025		MG RESISTOR 10kΩ,1/
R9027		MG RESISTOR 0Ω,1/16
R9028		MG RESISTOR 4.7kΩ,1
R9029		MG RESISTOR 4.7kΩ,1
R9032		MG RESISTOR 220Ω,1/
R9033		MG RESISTOR 220Ω,1/
R9034		MG RESISTOR 0Ω,1/16
R9035		MG RESISTOR 220Ω,1/
R9036		MG RESISTOR 0Ω,1/16
R9037		MG RESISTOR 0Ω,1/16
R9038		MG RESISTOR 220Ω,1/
R9039		MG RESISTOR 0Ω,1/16
R9040		MG RESISTOR 220Ω,1/
R9041		MG RESISTOR 0Ω,1/16
R9042		MG RESISTOR 0Ω,1/16
R9043		MG RESISTOR 220Ω,1/
R9044		MG RESISTOR 0Ω,1/16
R9045		MG RESISTOR 220Ω,1/
R9046		MG RESISTOR 220Ω,1/
R9047		MG RESISTOR 0Ω,1/16
R9048		MG RESISTOR 220Ω,1/
R9049		MG RESISTOR 0Ω,1/16
R9050		MG RESISTOR 220Ω,1/
R9051		MG RESISTOR 220Ω,1/
R9052		MG RESISTOR 220Ω,1/
R9055		MG RESISTOR 0Ω,1/16
R9056		MG RESISTOR 0Ω,1/16
R9057		MG RESISTOR 0Ω,1/16
R9058		MG RESISTOR 220Ω,1/
R9059		MG RESISTOR 0Ω,1/16
R9060		MG RESISTOR 0Ω,1/16
R9061		MG RESISTOR 0Ω,1/16
R9062		MG RESISTOR 220Ω,1/16W

! ... Safety component, use only this type

R9063	MG RESISTOR 220Ω,1/10W
R9064	MG RESISTOR 0Ω,1/16
R9065	MG RESISTOR 220Ω,1/
R9066	MG RESISTOR 220Ω,1/
R9067	MG RESISTOR 220Ω,1/
R9068	MG RESISTOR 470Ω,1/
R9069	MG RESISTOR 470Ω,1/
R9072	MG RESISTOR 1kΩ,1/1
R9073	MG RESISTOR 0Ω,1/16
R9074	MG RESISTOR 0Ω,1/16
R9075	MG RESISTOR 0Ω,1/16
R9076	MG RESISTOR 0Ω,1/16
R9077	MG RESISTOR 0Ω,1/16
R9078	MG RESISTOR 0Ω,1/16
R9079	MG RESISTOR 0Ω,1/16
R9080	MG RESISTOR 0Ω,1/16
R9081	MG RESISTOR 0Ω,1/16
R9082	MG RESISTOR 0Ω,1/16
R9083	MG RESISTOR 0Ω,1/16
R9084	MG RESISTOR 0Ω,1/16
R9085	MG RESISTOR 0Ω,1/16
R9086	MG RESISTOR 0Ω,1/16
R9087	MG RESISTOR 0Ω,1/16
R9088	MG RESISTOR 22kΩ,1/
R9089	MG RESISTOR 0Ω,1/16
R9090	MG RESISTOR 0Ω,1/16
R9092	MG RESISTOR 0Ω,1/16
R9093	MG RESISTOR 0Ω,1/16
R9094	MG RESISTOR 0Ω,1/16
R9095	MG RESISTOR 0Ω,1/16
R9096	MG RESISTOR 0Ω,1/16
R9097	MG RESISTOR 10kΩ,1/
R9098	MG RESISTOR 10kΩ,1/
R9101	MG RESISTOR 10kΩ,1/
R9102	MG RESISTOR 10kΩ,1/
R9103	MG RESISTOR 10kΩ,1/
R9104	MG RESISTOR 0Ω,1/16
R9106	MG RESISTOR 1kΩ,1/1
R9108	MG RESISTOR 330Ω,1/
R9109	MG RESISTOR 10kΩ,1/
R9110	MG RESISTOR 10kΩ,1/
R9111	MG RESISTOR 0Ω,1/16
R9112	MG RESISTOR 0Ω,1/16
R9113	MG RESISTOR 0Ω,1/16
R9114	MG RESISTOR 0Ω,1/16
R9116	MG RESISTOR 0Ω,1/16
R9125	MG RESISTOR 0Ω,1/16
R9126	MG RESISTOR 0Ω,1/16
R9127	MG RESISTOR 0Ω,1/16
R9128	MG RESISTOR 0Ω,1/16
R9130	MG RESISTOR 0Ω,1/16
R9131	MG RESISTOR 0Ω,1/16
R9132	MG RESISTOR 0Ω,1/16
R9141	MG RESISTOR 0Ω,1/16
R9142	MG RESISTOR 0Ω,1/16
R9143	MG RESISTOR 0Ω,1/16
R9147	MG RESISTOR 1kΩ,1/1
R9148	MG RESISTOR 1kΩ,1/1
R9149	MG RESISTOR 1kΩ,1/1
R9301	MG RESISTOR 10kΩ,1/
R9302	MG RESISTOR 10kΩ,1/
R9303	MG RESISTOR 10kΩ,1/
R9304	MG RESISTOR 10kΩ,1/
R9305	MG RESISTOR 10kΩ,1/
R9306	MG RESISTOR 10kΩ,1/
R9307	MG RESISTOR 0Ω,1/16
R9308	MG RESISTOR 0Ω,1/16
R9309	MG RESISTOR 0Ω,1/16
R9310	MG RESISTOR 47Ω,1/1
R9311	MG RESISTOR 47kΩ,1/
R9312	MG RESISTOR 47kΩ,1/
R9313	MG RESISTOR 10kΩ,1/
R9314	MG RESISTOR 10kΩ,1/
R9315	MG RESISTOR 47kΩ,1/
R9316	MG RESISTOR 47kΩ,1/
R9317	MG RESISTOR 10kΩ,1/
R9318	MG RESISTOR 100kΩ,1
R9320	MG RESISTOR 1MΩ,1/1
R9321	MG RESISTOR 100Ω,1/
R9322	MG RESISTOR 0Ω,1/16
R9323	MG RESISTOR 0Ω,1/16
R9324	MG RESISTOR 0Ω,1/16W
R9325	MG RESISTOR 0Ω,1/16W
R9326	MG RESISTOR 0Ω,1/16
R9327	MG RESISTOR 0Ω,1/16
R9328	MG RESISTOR 0Ω,1/16
R9329	MG RESISTOR 10kΩ,1/
R9330	MG RESISTOR 10kΩ,1/
R9331	MG RESISTOR 10kΩ,1/
R9332	MG RESISTOR 1kΩ,1/1
R9334	MG RESISTOR 47kΩ,1/
R9335	MG RESISTOR 47kΩ,1/
R9338	MG RESISTOR 47kΩ,1/
R9340	MG RESISTOR 47kΩ,1/
R9341	MG RESISTOR 47kΩ,1/
R9343	MG RESISTOR 47kΩ,1/
R9344	MG RESISTOR 47kΩ,1/
R9345	MG RESISTOR 47kΩ,1/
R9346	MG RESISTOR 47kΩ,1/
R9347	MG RESISTOR 0Ω,1/16
R9350	MG RESISTOR 10kΩ,1/
R9351	MG RESISTOR 12kΩ,1/
R9352	MG RESISTOR 680Ω,1/
R9353	MG RESISTOR 0Ω,1/16
R9354	MG RESISTOR 0Ω,1/16
R9355	MG RESISTOR 0Ω,1/16
R9356	MG RESISTOR 0Ω,1/16
R9357	MG RESISTOR 0Ω,1/16
R9358	MG RESISTOR 0Ω,1/16
R9359	MG RESISTOR 0Ω,1/16
R9360	MG RESISTOR 1MΩ,1/1
R9361	MG RESISTOR 0Ω,1/16
R9601	MG RESISTOR 0Ω,1/16
R9604	MG RESISTOR 0Ω,1/16
R9607	MG RESISTOR 0Ω,1/16
R9610	MG RESISTOR 0Ω,1/16
R9613	MG RESISTOR 0Ω,1/16
R9616	MG RESISTOR 0Ω,1/16
R9619	MG RESISTOR 0Ω,1/16
R9622	MG RESISTOR 0Ω,1/16
R9626	MG RESISTOR 10kΩ,1/
R9627	MG RESISTOR 470Ω,1/
R9628	MG RESISTOR 0Ω,1/16
R9631	MG RESISTOR 1MΩ,1/1
R9632	MG RESISTOR 47Ω,1/1
R9633	MG RESISTOR 1MΩ,1/1
R9634	MG RESISTOR 47Ω,1/1
R9635	MG RESISTOR 47kΩ,1/
R9636	MG RESISTOR 47kΩ,1/
R9637	MG RESISTOR 220kΩ,1
R9639	MG RESISTOR 10kΩ,1/
R9640	MG RESISTOR 47kΩ,1/
R9641	MG RESISTOR 47kΩ,1/
R9642	MG RESISTOR 47kΩ,1/
R9643	MG RESISTOR 47kΩ,1/
R9644	MG RESISTOR 220kΩ,1
R9646	MG RESISTOR 10kΩ,1/
R9647	MG RESISTOR 47kΩ,1/
R9648	MG RESISTOR 47kΩ,1/
R9649	MG RESISTOR 0Ω,1/16
R9650	MG RESISTOR 47kΩ,1/
R9651	MG RESISTOR 47kΩ,1/
R9652	MG RESISTOR 47kΩ,1/
R9653	MG RESISTOR 47kΩ,1/
R9654	MG RESISTOR 47kΩ,1/
R9655	MG RESISTOR 47kΩ,1/
R9656	MG RESISTOR 47kΩ,1/
R9657	MG RESISTOR 47kΩ,1/
R9658	MG RESISTOR 47kΩ,1/
R9659	MG RESISTOR 47kΩ,1/
R9660	MG RESISTOR 47kΩ,1/
R9661	MG RESISTOR 47kΩ,1/
R9662	MG RESISTOR 47kΩ,1/
R9663	MG RESISTOR 47kΩ,1/
R9664	MG RESISTOR 47kΩ,1/
R9665	MG RESISTOR 20kΩ,1/
R9666	MG RESISTOR 20kΩ,1/
R9667	MG RESISTOR 20kΩ,1/
R9668	MG RESISTOR 0Ω,1/16
R9669	MG RESISTOR 47kΩ,1/
R9670	MG RESISTOR 47kΩ,1/
R9673	MG RESISTOR 47kΩ,1/
R9674	MG RESISTOR 47kΩ,1/
R9675	MG RESISTOR 47kΩ,1/10W

! ... Safety component, use only this type

R9676		MG RESISTOR 47kΩ,1/10W
R9677		MG RESISTOR 47kΩ,1/
R9678		MG RESISTOR 47kΩ,1/
R9679		MG RESISTOR 47kΩ,1/
R9680		MG RESISTOR 47kΩ,1/
R9682		MG RESISTOR 0Ω,1/16
R9685		MG RESISTOR 10kΩ,1/
R9686		MG RESISTOR 4.7kΩ,1
R9687		MG RESISTOR 47kΩ,1/
R9688		MG RESISTOR 10kΩ,1/
R9689		MG RESISTOR 4.7kΩ,1
R9690		MG RESISTOR 47kΩ,1/
R9801		MG RESISTOR 1.8kΩ,1
R9802		MG RESISTOR 1.8kΩ,1
R9803		MG RESISTOR 820Ω,1/
R9804		MG RESISTOR 820Ω,1/
R9805		MG RESISTOR 10Ω,1/1
R9811		MG RESISTOR 0Ω,1/16
R9812		MG RESISTOR 100kΩ,1
R9813		MG RESISTOR 100kΩ,1
R9814		MG RESISTOR 0Ω,1/16
R9815		MG RESISTOR 0Ω,1/16
R9816		MG RESISTOR 1kΩ,1/1
R9817		MG RESISTOR 1kΩ,1/1
R9818		MG RESISTOR 1kΩ,1/1
R9819		MG RESISTOR 1kΩ,1/1
R9820		MG RESISTOR 3kΩ,1/1
R9821		MG RESISTOR 3kΩ,1/1
R9824		MG RESISTOR 1kΩ,1/1
R9825		MG RESISTOR 1kΩ,1/1
R9826		MG RESISTOR 2.2kΩ,1
R9827		MG RESISTOR 2.2kΩ,1
R9828		MG RESISTOR 220Ω,1/
R9829		MG RESISTOR 220Ω,1/
R9830		MG RESISTOR 1kΩ,1/1
R9831		MG RESISTOR 10kΩ,1/
R9832		MG RESISTOR 10kΩ,1/
R9833		MG RESISTOR 390Ω,1/
R9834		MG RESISTOR 390Ω,1/
R9835		MG RESISTOR 100kΩ,1
R9836		MG RESISTOR 100kΩ,1
VR8601	996500001206	TRIM RESISTOR 470Ω

RESISTORS

RA8001		NET RESISTOR 47kΩ,1/16W
RA8002		NET RESISTOR 47kΩ,1
RA8004		NET RESISTOR 47kΩ,1
RA8005		NET RESISTOR 47Ω,1/
RA8006		NET RESISTOR 47Ω,1/
RA8007		NET RESISTOR 47Ω,1/
RA8008		NET RESISTOR 47kΩ,1
RA8009		NET RESISTOR 47kΩ,1
RA8010		NET RESISTOR 47kΩ,1
RA8011		NET RESISTOR 47Ω,1/
RA8012		NET RESISTOR 47Ω,1/
RA8013		NET RESISTOR 47Ω,1/
RA8014		NET RESISTOR 47Ω,1/
RA8015		NET RESISTOR 47Ω,1/
RA8016		NET RESISTOR 47Ω,1/
RA8017		NET RESISTOR 0Ω,1/1
RA8601		NET RESISTOR 0Ω,1/1
RA8602		NET RESISTOR 0Ω,1/1
RA8603		NET RESISTOR 0Ω,1/1
RA8604		NET RESISTOR 0Ω,1/1
RA8801		NET RESISTOR 10kΩ,1
RA8802		NET RESISTOR 10kΩ,1
RA9001		NET RESISTOR 10kΩ,1
RA9002		NET RESISTOR 10kΩ,1
RA9003		NET RESISTOR 10kΩ,1
RA9004		NET RESISTOR 10kΩ,1
RA9005		NET RESISTOR 10kΩ,1
RA9006		NET RESISTOR 10kΩ,1
RA9301		NET RESISTOR 10kΩ,1
RA9302		NET RESISTOR 10kΩ,1
RA9303		NET RESISTOR 10kΩ,1
RA9304		NET RESISTOR 10kΩ,1
RA9305		NET RESISTOR 10kΩ,1
RA9306		NET RESISTOR 10kΩ,1
RA9307		NET RESISTOR 10kΩ,1/16W
RA9308		NET RESISTOR 0Ω,1/16W
RA9309		NET RESISTOR 0Ω,1/1
RA9310		NET RESISTOR 0Ω,1/1
RA9311		NET RESISTOR 0Ω,1/1
RA9312		NET RESISTOR 0Ω,1/1
RA9313		NET RESISTOR 0Ω,1/1
RA9314		NET RESISTOR 0Ω,1/1
RA9315		NET RESISTOR 0Ω,1/1
RA9316		NET RESISTOR 0Ω,1/1
RA9317		NET RESISTOR 0Ω,1/1
RA9318		NET RESISTOR 0Ω,1/1
RA9319		NET RESISTOR 0Ω,1/1
RA9320		NET RESISTOR 10kΩ,1
RA9321		NET RESISTOR 10kΩ,1
RA9323		NET RESISTOR 10kΩ,1
RA9324		NET RESISTOR 10kΩ,1
RA9325		NET RESISTOR 10kΩ,1
RA9326		NET RESISTOR 10kΩ,1
RA9327		NET RESISTOR 10kΩ,1
RA9328		NET RESISTOR 10kΩ,1
RA9329		NET RESISTOR 10kΩ,1
RA9330		NET RESISTOR 10kΩ,1
RA9331		NET RESISTOR 10kΩ,1
RA9332		NET RESISTOR 10kΩ,1
RA9333		NET RESISTOR 10kΩ,1
RA9601		NET RESISTOR 10kΩ,1
RA9602		NET RESISTOR 10kΩ,1
RA9603		NET RESISTOR 10kΩ,1
RA9604		NET RESISTOR 10kΩ,1
RA9605		NET RESISTOR 10kΩ,1
RA9606		NET RESISTOR 10kΩ,1
RA9607		NET RESISTOR 10kΩ,1
RA9608		NET RESISTOR 10kΩ,1
RA9609		NET RESISTOR 10kΩ,1
RA9610		NET RESISTOR 10kΩ,1
RA9611		NET RESISTOR 10kΩ,1
RA9612		NET RESISTOR 10kΩ,1/16W

CAPACITORS

C8001		CAPACITOR 22pF,50V
C8002		CAPACITOR 27pF,50V
C8003		MG RESISTOR 0Ω,1/16
C8004		CAPACITOR 0.01µF,50
C8005		CAPACITOR 0.01µF,50
C8006		CAPACITOR 0.01µF,50
C8007		CAPACITOR 0.01µF,50
C8008		CAPACITOR 0.01µF,50
C8010	996500000473	TA E CAPACITOR 22µF
C8101		CAPACITOR 10pF,50V
C8102		CAPACITOR 0.01µF,50
C8103		CAPACITOR 0.01µF,50
C8104	482212411662	TA E CAPACITOR 10µF
C8105	482212411662	TA E CAPACITOR 10µF
C8106		CAPACITOR 0.01µF,50
C8107		CAPACITOR 0.01µF,50
C8108		CAPACITOR 0.01µF,50
C8109		CAPACITOR 0.01µF,50
C8110	996500000473	TA E CAPACITOR 22µF
C8111		CAPACITOR 0.01µF,50
C8112	996500000473	TA E CAPACITOR 22µF
C8113		CAPACITOR 10pF,50V
C8114		CAPACITOR 0.01µF,50
C8115		CAPACITOR 0.22µF,16
C8116		CAPACITOR 0.22µF,16
C8121		CAPACITOR 0.1µF,16V
C8127		CAPACITOR 0.01µF,50
C8129		E CAPACITOR 47µF,6.
C8130		CAPACITOR 0.01µF,50
C8131		E CAPACITOR 47µF,6.
C8141		CAPACITOR 0.1µF,16V
C8147		CAPACITOR 0.1µF,16V
C8148		CAPACITOR 0.1µF,16V
C8149		CAPACITOR 0.01µF,50
C8150		E CAPACITOR 47µF,16
C8151		CAPACITOR 0.01µF,50
C8152	996500000473	TA E CAPACITOR 22µF
C8162		CAPACITOR 0.012µF,2
C8163		CAPACITOR 1µF,10V
C8164		CAPACITOR 10pF,50V
C8166		CAPACITOR 0.01µF,50V

C8167		E CAPACITOR 47µF,6.3V
C8196		TA E CAPACITOR 1µF,
C8197		CAPACITOR 0.01µF,50
C8198		CAPACITOR 0.01µF,50
C8199		CAPACITOR 0.01µF,50
C8401		CAPACITOR 0.1µF,16V
C8402		CAPACITOR 0.1µF,16V
C8403		CAPACITOR 0.1µF,16V
C8404		CAPACITOR 0.1µF,16V
C8405		CAPACITOR 0.1µF,16V
C8406		CAPACITOR 0.1µF,16V
C8407		CAPACITOR 0.1µF,16V
C8408		CAPACITOR 0.1µF,16V
C8409		CAPACITOR 0.1µF,16V
C8410		CAPACITOR 0.1µF,16V
C8411		CAPACITOR 0.1µF,16V
C8412		CAPACITOR 0.1µF,16V
C8413		CAPACITOR 0.1µF,16V
C8414		CAPACITOR 0.1µF,16V
C8415		CAPACITOR 0.1µF,16V
C8416		CAPACITOR 0.1µF,16V
C8417		CAPACITOR 0.1µF,16V
C8418		CAPACITOR 0.1µF,16V
C8419		CAPACITOR 0.1µF,16V
C8422		CAPACITOR 0.1µF,16V
C8423		CAPACITOR 0.1µF,16V
C8424		CAPACITOR 0.1µF,16V
C8425		CAPACITOR 0.1µF,16V
C8426		CAPACITOR 47pF,50V
C8427		CAPACITOR 0.1µF,16V
C8428		CAPACITOR 0.1µF,16V
C8429		CAPACITOR 47pF,50V
C8430		CAPACITOR 47pF,50V
C8431		CAPACITOR 47pF,50V
C8432		CAPACITOR 47pF,50V
C8433		CAPACITOR 47pF,50V
C8434		CAPACITOR 47pF,50V
C8435		CAPACITOR 47pF,50V
C8436		CAPACITOR 47pF,50V
C8437		CAPACITOR 47pF,50V
C8438		CAPACITOR 47pF,50V
C8439		CAPACITOR 47pF,50V
C8440		CAPACITOR 47pF,50V
C8441		CAPACITOR 47pF,50V
C8442		CAPACITOR 47pF,50V
C8443		CAPACITOR 47pF,50V
C8444		CAPACITOR 47pF,50V
C8445		CAPACITOR 47pF,50V
C8446		CAPACITOR 47pF,50V
C8447		CAPACITOR 0.1µF,16V
C8448		CAPACITOR 0.01µF,50
C8449		CAPACITOR 0.1µF,16V
C8450		CAPACITOR 0.01µF,50
C8451		CAPACITOR 0.1µF,16V
C8452		CAPACITOR 0.01µF,50
C8453		CAPACITOR 0.1µF,16V
C8454		CAPACITOR 0.01µF,50
C8455		CAPACITOR 0.01µF,50
C8456	996500000473	TA E CAPACITOR 22µF
C8457		CAPACITOR 0.01µF,50
C8458	996500000473	TA E CAPACITOR 22µF
C8459	996500000473	TA E CAPACITOR 22µF
C8460	996500000473	TA E CAPACITOR 22µF
C8462		MG RESISTOR 0Ω,1/16
C8463		CAPACITOR 0.1µF,16V
C8464		CAPACITOR 10pF,50V
C8465		CAPACITOR 10pF,50V
C8601	996500000473	TA E CAPACITOR 22µF
C8602		CAPACITOR 0.1µF,16V
C8603		CAPACITOR 8pF,50V
C8604		CAPACITOR 15pF,50V
C8605		CAPACITOR 39pF,50V
C8606		CAPACITOR 33pF,50V
C8607		CAPACITOR 0.1µF,16V
C8608	482212411662	TA E CAPACITOR 10µF
C8609		E CAPACITOR 100µF,6
C8610		CAPACITOR 0.01µF,50
C8611		CAPACITOR 0.01µF,50
C8612		CAPACITOR 0.1µF,16V
C8613		CAPACITOR 8pF,50V
C8614		CAPACITOR 15pF,50V
C8615		CAPACITOR 39pF,50V
C8616		CAPACITOR 33pF,50V
C8617		CAPACITOR 0.1µF,16V
C8618		CAPACITOR 0.1µF,16V
C8619		CAPACITOR 0.01µF,50
C8620		E CAPACITOR 100µF,6
C8621		CAPACITOR 0.1µF,16V
C8622		CAPACITOR 33pF,50V
C8623		CAPACITOR 39pF,50V
C8624		CAPACITOR 15pF,50V
C8625		CAPACITOR 8pF,50V
C8626		CAPACITOR 0.1µF,16V
C8627		CAPACITOR 0.01µF,50
C8628		CAPACITOR 0.1µF,16V
C8641	482212411662	TA E CAPACITOR 10µF
C8642		CAPACITOR 0.1µF,16V
C8643		CAPACITOR 33pF,50V
C8644		CAPACITOR 39pF,50V
C8645		CAPACITOR 12pF,50V
C8646		CAPACITOR 8pF,50V
C8647		CAPACITOR 0.1µF,16V
C8648	482212411662	TA E CAPACITOR 10µF
C8649	996500000474	TA E CAPACITOR 47µF
C8650		CAPACITOR 0.1µF,16V
C8651	996500000473	TA E CAPACITOR 22µF
C8652		CAPACITOR 0.1µF,16V
C8653		CAPACITOR 0.1µF,16V
C8654		CAPACITOR 0.1µF,16V
C8655		CAPACITOR 0.1µF,16V
C8656		CAPACITOR 0.1µF,16V
C8657		CAPACITOR 0.1µF,16V
C8658	482212411662	TA E CAPACITOR 10µF
C8659		CAPACITOR 0.1µF,16V
C8660	482212411662	TA E CAPACITOR 10µF
C8661		CAPACITOR 0.1µF,16V
C8662		CAPACITOR 0.1µF,16V
C8663		CAPACITOR 0.1µF,16V
C8664		CAPACITOR 0.1µF,16V
C8665		CAPACITOR 0.1µF,16V
C8666		CAPACITOR 0.1µF,16V
C8667		CAPACITOR 0.1µF,16V
C8668		CAPACITOR 0.1µF,16V
C8669		CAPACITOR 0.1µF,16V
C8670		CAPACITOR 0.1µF,16V
C8671		CAPACITOR 0.1µF,16V
C8672		CAPACITOR 0.1µF,16V
C8673		CAPACITOR 0.1µF,16V
C8674		CAPACITOR 0.1µF,16V
C8675		CAPACITOR 0.1µF,16V
C8676		CAPACITOR 0.1µF,16V
C8677		CAPACITOR 0.1µF,16V
C8678		CAPACITOR 0.1µF,16V
C8679		CAPACITOR 0.1µF,16V
C8680		CAPACITOR 0.1µF,16V
C8681		CAPACITOR 0.1µF,16V
C8682		CAPACITOR 0.1µF,16V
C8683		CAPACITOR 0.1µF,16V
C8684		CAPACITOR 0.1µF,16V
C8685		CAPACITOR 0.1µF,16V
C8686		CAPACITOR 0.1µF,16V
C8687		CAPACITOR 0.1µF,16V
C8688		CAPACITOR 0.1µF,16V
C8689		CAPACITOR 0.1µF,50V
C8690		CAPACITOR 0.1µF,50V
C8691		CAPACITOR 0.1µF,50V
C8692		CAPACITOR 0.1µF,50V
C8693	996500000473	TA E CAPACITOR 22µF
C8694		MG RESISTOR 0Ω,1/16
C8695		E CAPACITOR 470µF,6
C8696		CAPACITOR 47pF,50V
C8697	482212411662	TA E CAPACITOR 10µF
C8698		E CAPACITOR 470µF,6
C8700		MG RESISTOR 0Ω,1/16
C8702		CAPACITOR 47pF,50V
C8801	996500000473	TA E CAPACITOR 22µF
C8802	996500000473	TA E CAPACITOR 22µF
C8803		CAPACITOR 0.1µF,16V
C8804		CAPACITOR 0.1µF,16V
C8805		CAPACITOR 0.1µF,16V
C8806		CAPACITOR 0.1µF,16V
C8807		CAPACITOR 0.1µF,16V
C8808		CAPACITOR 0.1µF,16V
C8809		CAPACITOR 0.1µF,16V

C8810		CAPACITOR 0.1µF,16V
C8811		CAPACITOR 12pF,50V
C8812		CAPACITOR 12pF,50V
C8813		CAPACITOR 220pF,50V
C8814		CAPACITOR 22pF,50V
C8815		CAPACITOR 0.1µF,16V
C8816		CAPACITOR 0.1µF,16V
C8817		CAPACITOR 0.1µF,16V
C8818		CAPACITOR 0.1µF,16V
C8819		CAPACITOR 0.1µF,16V
C8820		CAPACITOR 270pF,50V
C8821		CAPACITOR 1µF,10V
C8822		CAPACITOR 270pF,50V
C8823		CAPACITOR 1µF,10V
C8824		CAPACITOR 270pF,50V
C8825		CAPACITOR 1µF,10V
C8826		CAPACITOR 0.1µF,16V
C9001		CAPACITOR 0.1µF,16V
C9002		CAPACITOR 0.1µF,16V
C9003		CAPACITOR 0.1µF,16V
C9004	482212411662	TA E CAPACITOR 10µF
C9005		CAPACITOR 0.01µF,50
C9006		CAPACITOR 20pF,50V
C9007		CAPACITOR 20pF,50V
C9008		CAPACITOR 0.1µF,16V
C9009		CAPACITOR 0.1µF,16V
C9010		CAPACITOR 0.1µF,16V
C9011		CAPACITOR 0.01µF,50
C9012		CAPACITOR 0.1µF,16V
C9013		CAPACITOR 0.1µF,16V
C9016		CAPACITOR 0.1µF,16V
C9017		CAPACITOR 0.1µF,16V
C9018		CAPACITOR 0.1µF,16V
C9019		CAPACITOR 0.1µF,16V
C9020		CAPACITOR 0.1µF,16V
C9021		CAPACITOR 0.1µF,16V
C9022		CAPACITOR 0.1µF,16V
C9023		CAPACITOR 0.1µF,16V
C9024		CAPACITOR 0.1µF,16V
C9025		CAPACITOR 0.1µF,16V
C9026		CAPACITOR 0.1µF,16V
C9027		CAPACITOR 0.01µF,50
C9028		CAPACITOR 0.01µF,50
C9029		CAPACITOR 0.01µF,50
C9030		CAPACITOR 0.01µF,50
C9031		CAPACITOR 0.01µF,50
C9032		CAPACITOR 47pF,50V
C9033		CAPACITOR 47pF,50V
C9034		CAPACITOR 47pF,50V
C9035		CAPACITOR 47pF,50V
C9036		CAPACITOR 47pF,50V
C9037		CAPACITOR 47pF,50V
C9038		CAPACITOR 47pF,50V
C9039		CAPACITOR 47pF,50V
C9040		CAPACITOR 47pF,50V
C9041		CAPACITOR 47pF,50V
C9042		CAPACITOR 47pF,50V
C9043		CAPACITOR 47pF,50V
C9044		CAPACITOR 47pF,50V
C9045		CAPACITOR 47pF,50V
C9046		CAPACITOR 47pF,50V
C9047		CAPACITOR 47pF,50V
C9048		CAPACITOR 47pF,50V
C9049		CAPACITOR 47pF,50V
C9054		CAPACITOR 0.1µF,16V
C9055	996500000473	TA E CAPACITOR 22µF
C9057		CAPACITOR 0.1µF,16V
C9058		CAPACITOR 0.01µF,50
C9059		CAPACITOR 0.01µF,50
C9063		MG RESISTOR 0Ω,1/16
C9065		CAPACITOR 0.1µF,16V
C9066		CAPACITOR 0.1µF,16V
C9301	996500000473	TA E CAPACITOR 22µF
C9302		CAPACITOR 0.01µF,50
C9303	996500000473	TA E CAPACITOR 22µF
C9304		CAPACITOR 0.01µF,50
C9305		CAPACITOR 0.1µF,16V
C9306		CAPACITOR 0.1µF,16V
C9307		CAPACITOR 0.1µF,16V
C9308		CAPACITOR 0.1µF,16V
C9309		CAPACITOR 0.1µF,16V
C9310		CAPACITOR 0.1µF,16V
C9311		CAPACITOR 0.1µF,16V
C9312		CAPACITOR 0.1µF,16V
C9313		CAPACITOR 0.1µF,16V
C9314		CAPACITOR 0.1µF,16V
C9317		CAPACITOR 5pF,50V
C9319		CAPACITOR 0.001µF,5
C9320		CAPACITOR 0.01µF,50
C9322		CAPACITOR 0.01µF,50
C9327		CAPACITOR 0.01µF,50
C9329		MG RESISTOR 0Ω,1/16
C9330		CAPACITOR 0.01µF,50
C9331		CAPACITOR 0.01µF,50
C9332		CAPACITOR 0.01µF,50
C9333		CAPACITOR 0.01µF,50
C9334		CAPACITOR 0.0015µF,
C9335		CAPACITOR 100pF,50V
C9336		CAPACITOR 0.1µF,16V
C9337	996500000473	TA E CAPACITOR 22µF
C9339		CAPACITOR 0.001µF,5
C9340		CAPACITOR 0.01µF,50
C9341		CAPACITOR 0.01µF,50
C9601		E CAPACITOR 47µF,6.
C9602		CAPACITOR 0.01µF,50
C9603		E CAPACITOR 47µF,16
C9604		CAPACITOR 0.01µF,50
C9605		E CAPACITOR 100µF,6
C9606		CAPACITOR 0.01µF,50
C9607		E CAPACITOR 47µF,16
C9608		CAPACITOR 0.01µF,50
C9609	996500000474	TA E CAPACITOR 47µF
C9610		CAPACITOR 0.01µF,50
C9611	996500000474	TA E CAPACITOR 47µF
C9612		CAPACITOR 0.01µF,50
C9613	996500000474	TA E CAPACITOR 47µF
C9614		CAPACITOR 0.01µF,50
C9615	996500000474	TA E CAPACITOR 47µF
C9616		CAPACITOR 0.01µF,50
C9617		E CAPACITOR 22µF,6.
C9618		CAPACITOR 0.01µF,50
C9619	996500000474	TA E CAPACITOR 47µF
C9620		CAPACITOR 0.01µF,50
C9621	996500000473	TA E CAPACITOR 22µF
C9623		CAPACITOR 0.01µF,50
C9624		CAPACITOR 0.01µF,50
C9625		CAPACITOR 0.01µF,50
C9626		CAPACITOR 0.01µF,50
C9627		CAPACITOR 0.01µF,50
C9632		CAPACITOR 0.1µF,16V
C9635		CAPACITOR 0.1µF,16V
C9636		CAPACITOR 0.1µF,16V
C9639		CAPACITOR 0.1µF,16V
C9640		CAPACITOR 0.01µF,50
C9641		CAPACITOR 0.01µF,50
C9642		CAPACITOR 0.01µF,50
C9643		CAPACITOR 0.01µF,50
C9644		CAPACITOR 0.01µF,50
C9645		CAPACITOR 0.01µF,50
C9646		CAPACITOR 0.01µF,50
C9647		CAPACITOR 0.01µF,50
C9648		CAPACITOR 0.01µF,50
C9649		CAPACITOR 0.01µF,50
C9650		CAPACITOR 0.01µF,50
C9651		CAPACITOR 0.01µF,50
C9652		MG RESISTOR 0Ω,1/16
C9656		CAPACITOR 100pF,50V
C9657		CAPACITOR 0.001µF,5
C9658		CAPACITOR 0.001µF,5
C9659		CAPACITOR 100pF,50V
C9660		CAPACITOR 0.001µF,5
C9661		CAPACITOR 0.001µF,5
C9662		CAPACITOR 0.01µF,50
C9801		E CAPACITOR 1µF,50V
C9802		E CAPACITOR 1µF,50V
C9803		CAPACITOR 0.0015µF,
C9804		CAPACITOR 0.0015µF,
C9805		CAPACITOR 0.1µF,16V
C9806		CAPACITOR 0.1µF,16V
C9807	482212411663	TA E CAPACITOR 4.7µ
C9808	482212411663	TA E CAPACITOR 4.7µ
C9809		CAPACITOR 0.1µF,16V
C9810	996500000473	TA E CAPACITOR,22µF,
C9811		CAPACITOR 0.1µF,16V

C9812	482212411663	TA E CAPACITOR 4.7µ
C9813		CAPACITOR 0.1µF,16V
C9814	996500000473	TA E CAPACITOR 22µF
C9815		CAPACITOR 0.1µF,16V
C9816		E CAPACITOR 47µF,6.
C9817		CAPACITOR 0.1µF,16V
C9818		E CAPACITOR 47µF,16
C9819		CAPACITOR 0.1µF,16V
C9820	482212411662	TA E CAPACITOR 10µF
C9821	482212411662	TA E CAPACITOR 10µF
C9824		CAPACITOR 0.0068µF,25V
C9825		CAPACITOR 0.0068µF,25V
C9826		CAPACITOR 0.0033µF,50V
C9827		CAPACITOR 0.0033µF,50V
C9830		CAPACITOR 0.1µF,16V
C9831		CAPACITOR 0.1µF,16V

COILS

L8105	996500002208	COIL 15µH
L8111	996500002209	COIL 10µH
L8112	996500002209	COIL 10µH
L8113	996500002209	COIL 10µH
L8115	996500002209	COIL 10µH
L8116	996500002209	COIL 10µH
L8117	996500002209	COIL 10µH
L8401	996500002210	COIL 10µH
L8601	996500002208	COIL 10µH
L8602	996500002211	COIL 10µH
L8603	996500002209	COIL 10µH
L8604	996500002208	COIL 10µH
L8605	996500002211	COIL 10µH
L8606	996500002209	COIL 10µH
L8607	996500002211	COIL 10µH
L8608	996500002208	COIL 10µH
L8613	996500002211	COIL 10µH
L8614	996500002208	COIL 10µH
L8615	996500002209	COIL 10µH
L8616	996500002209	COIL 10µH
L8802	996500002209	COIL 10µH
L8803	996500002212	COIL 10µH
L9302	996500002209	COIL 10µH
L9610	996500002209	COIL 10µH
L9801	996500002209	COIL 10µH
L9802	996500002209	COIL 10µH
LC8401	996500002213	NOISE FILTER
LC9601	996500002213	NOISE FILTER
LC9602	996500002213	NOISE FILTER
LC9603	996500002213	NOISE FILTER
LC9604	996500002213	NOISE FILTER
LC9605	996500002213	NOISE FILTER
LC9606	996500002213	NOISE FILTER
LC9608	996500002213	NOISE FILTER

CRYSTALS

X8001	996500002214	CRYSTAL RESONATOR
X8401	996500002215	CRYSTAL RESONATOR
X8801	996500002216	CRYSTAL RESONATOR
X9001	996500002217	CRYSTAL RESONATOR
X9301	996500002218	CRYSTAL RESONATOR

FERRITE BEADS

K8001	996500002219	NOISE FILTER
K8002	996500002219	NOISE FILTER
K8101	996500002219	NOISE FILTER
K8401	996500002220	NOISE FILTER
K8402	996500002219	NOISE FILTER
K8403	996500002221	FERRAIE BEAD
K8404	996500002221	FERRAIE BEAD
K8801	996500002219	NOISE FILTER
K8802	996500002219	NOISE FILTER
K9001	996500002219	NOISE FILTER
K9002	996500002219	NOISE FILTER
K9301	996500002219	NOISE FILTER
K9302	996500002219	NOISE FILTER
K9303	482205130008	MG RESISTOR 0Ω,1/16W
K9304	996500002222	FERRITE BEAD
K9305	996500002222	FERRITE BEAD
K9306	482205130008	MG RESISTOR 0Ω,1/16W
K9307	482205130008	MG RESISTOR 0Ω,1/16
K9308	482205130008	MG RESISTOR 0Ω,1/16
K9309	996500002219	NOISE FILTER
K9310	482205130008	MG RESISTOR 0Ω,1/16
K9311	482205130008	MG RESISTOR 0Ω,1/16
K9312	996500002222	FERRITE BEAD
K9313	996500002219	NOISE FILTER
K9314	482205130008	MG RESISTOR 0Ω,1/16
K9601	996500002219	NOISE FILTER
K9602	482205130008	MG RESISTOR 0Ω,1/16W
K9603	996500002219	NOISE FILTER

OTHERS

OT1	996500002238	SHEET(DIGITAL)
OT2	996500002238	SPACER

WIRE

WR1	996500002239	SIN CR C-C WIRE,MAIN
WR2	996500002240	SIN CR C-C WIRE,MAIN
WR3	996500002241	SHI CR C-C WIRE,MAIN
WR4	996500002242	SIN CR C-C WIRE,MAIN
WR5	996500002243	SHI CR C-C WIRE,S_SU
WR6	996500002244	SIN CR C-C WIRE,REG
WR7	996500002245	SIN CR C-C WIRE,REG
WR8	996500002246	SIN CR C-C WIRE,REG
WR9	996500002247	E-COAXIAL ASSY,DP/R
WR10	996500002248	COAXIAL WIRE,DP/R
J8801	996500002249	D CONNECTOR,1394JACK

CONNECTORS

CN8001	996500002165	PIN JACK,RCA MINI
CN8002	996500002165	PIN JACK,RCA MINI
CN8601	996500002223	CONNECTOR,(1-6)3D SV
CN9001	996500002224	CONNECTOR,(1-9)MAIN
CN9002	996500002225	CONNECTOR,(1-4)SW RE
CN9003	996500002226	CONNECTOR,(1-6)SW RE
CN9004	996500002227	FPC CONNECTOR,(1-4)J
CN9005	996500002228	FPC CONNECTOR,(1-5)
CN9601	996500002229	CONNECTOR,(1-3)SW RE
CN9602	996500002225	CONNECTOR,(1-4)SW RE
CN9603	996500002223	CONNECTOR,(1-6)SW RE
CN9801	996500002224	CONNECTOR,(1-9)MAIN